Panasonic

TH-58AX800H

eHELP

English

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OK Letters enclosed in a box indicate remote control buttons.
Menu Letters in cyan indicate on-screen display items.
References in this eHELP

• The images shown in this eHELP are for illustrative purposes only.

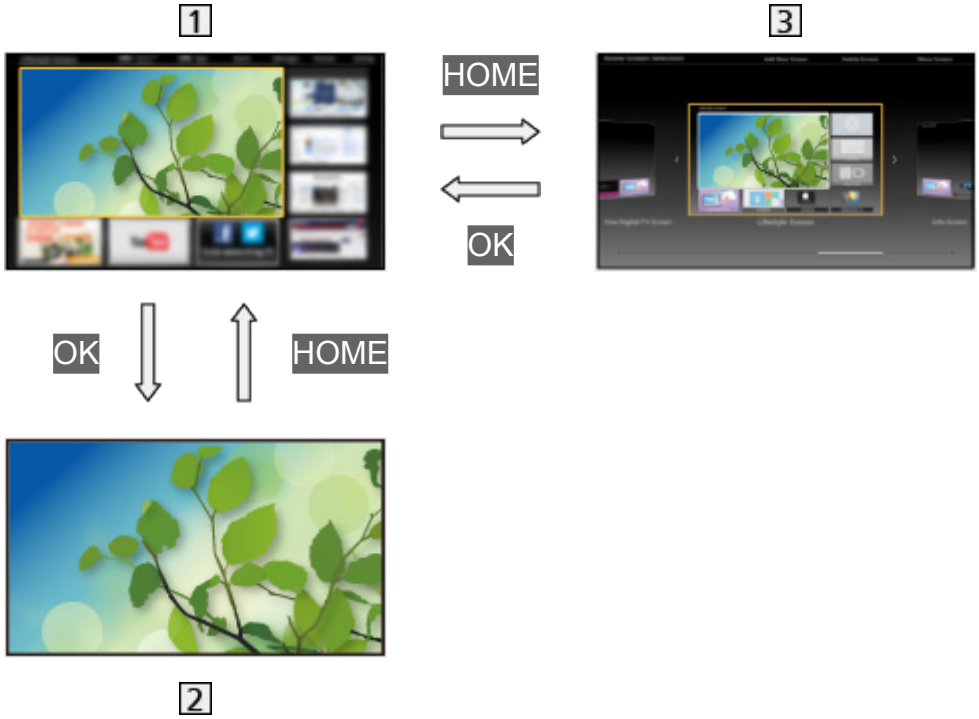
my Home Screen

my Home Screen

Information

“my Home Screen” is a gateway to the TV, applications, and more.

It provides easy access to special features such as Media Player, videos, games, communication tools, etc. as shown below (example).



1 Home Screen

2 Selected content screen (TV, application, etc.)

3 Home Screen Selection

– Your preferred Home Screen can be selected.

How to use

Home Screen provides access to special features such as Media Player, TV, internet content, data services, communication tools, etc.

1. Display Home Screen with HOME.

   (Example)

   - The last viewed Home Screen is displayed when the TV is turned on.
   - Press again to select or add your preferred Home Screen layout.

     my Home Screen > my Home Screen > Settings

2. Select a feature with △ / ▽ / ◁ / ▷ and press OK to access.
   - To watch full-screen TV

     1) Select the TV viewer with △ / ▽ / ◁ / ▷.

        (Example)

     2) Press OK to watch.

        (Example)

- Also refer to Tutorial from the tool guide.

Settings

Select the setup menu from the tool guide on the top of the screen.

(Example)

■ Home Screen Selection

1. Display Home Screen Selection with HOME.

   (Example)

2. Select the screen with ◁ / ▷ and press OK to set.

   Full Screen TV:

   Displays full-screen TV.

   TV Home Screen:

   To make your TV experience more convenient and comfortable

   Lifestyle Screen:

   Displays the TV with useful information and services for everyday life.

   Info Screen:

   Enjoy internet content while watching TV.

■ Face Recognition / Voice Print Recognition

By using the built-in Camera and Voice Control function, this TV recognises your face / voice and displays the registered Home Screen.

- Say “my Home Screen” into the microphone of the Touch Pad Controller to use this function.
- To use this function, you need to set up a user profile and register face / voice data, preferred Home Screen, etc.

  Functions > User profile > Settings
- For details of the built-in Camera

  Functions > Built-in Camera > Using built-in Camera
- For details of Voice Control function

  Functions > Voice Control

■ Settings

You can customise any Home Screen. (For example, changing the wallpaper, renaming freely, editing applications, setting the screen launched when the TV is turned on, etc.)

1. Select Settings from the tool guide.
2. Follow the on-screen instructions.

■ Search

You can search the content from various features.

1. Select Search from the tool guide.
2. Follow the on-screen instructions.

= Note =

- To change the colour type of on-screen displays, set OSD Colour.

  my Home Screen > my Home Screen > OSD Colour
- To use this function fully, you need a broadband network environment. Ensure the network connections and network settings are completed.

  Network > Network connections

  Network > Network settings
- Be sure to update the software when a software update notice is displayed on the TV screen. If the software is not updated, you may not be able to use my Home Screen. You can update the software later manually.

  Network > Network settings > Software Update

OSD Colour

1. Display the menu with MENU.
2. Select Setup > Display Settings > OSD Colour with △ / ▽ and press OK to access.
3. Set with △ / ▽ and press OK to store.

OSD Colour

(Jet black / Pale grey / Organic brown / Sand beige)

Selects the preferred colour type of on-screen displays.

- This function is available for the information banner, menu screen, Home Screen, etc.

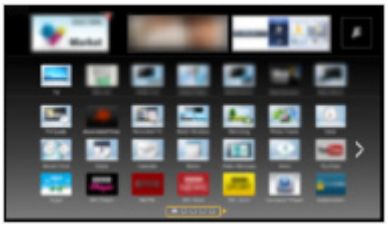
APPS List

Information

Various applications (internet contents, network contents, Media Player, etc.) can be accessed easily from APPS List.

■ APPS List

(Example)



= Note =

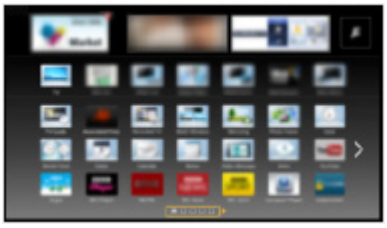
- APPS List is subject to change without notice.

How to use

You can access special features such as internet contents, network contents, Media Player, etc. from APPS List.

1. Display APPS List with APPS.

   (Example)

   - To exit APPS List

     EXIT

2. Select an icon of the features with △ / ▽ / ◁ / ▷ and press OK to access.

   Internet contents

   Network > Internet content

   my Stream

   - Provides recommended contents (TV programme, internet content, etc.).
   - You need a broadband network environment to use this function fully.
   - Follow the on-screen instructions to operate the application.

   Functions > User profile > my Stream

   Media Player

   Media Player > Using Media Player > Selecting device / mode

   Recorded TV

   Media Player > Recorded TV mode

   Media Server

   Network > DLNA > Using DLNA

   VIERA Link

   Functions > VIERA Link “HDAVI Control™”

Settings

You can customise APPS List (screen settings, etc.).

1. Display APPS List with APPS.
2. Select the icon for settings on APPS List with △ / ▽ / ◁ / ▷ and press OK to access.

3. Follow the on-screen instructions.

= Note =

- Setup menu items may be changed without notice.

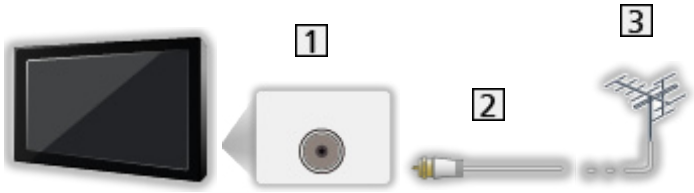
Watching

Basic

Basic connection

Please ensure that the unit is disconnected from the mains socket before attaching or disconnecting any cables.

■ Aerial



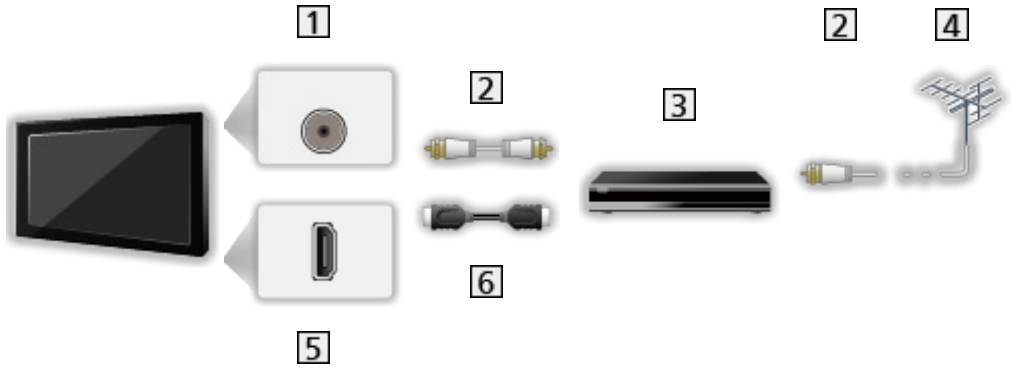
1 Aerial terminal

2 RF cable

3 Aerial

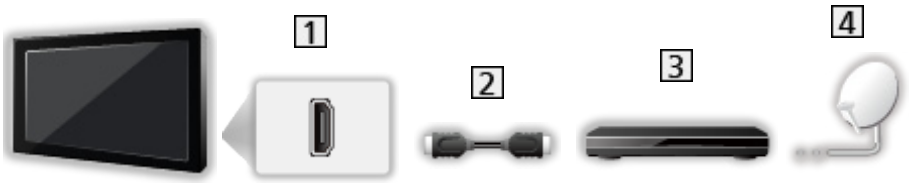
- Keep RF (antenna) cable away from the mains lead to avoid and minimise mains interference pickup.
- Do not place the RF cable under the TV.
- An aerial, correct cable (75 Ω coaxial) and correct terminating plug are required to obtain optimum quality picture and sound.
- If a communal aerial system is used, you may require the correct connection cable and plug between the wall aerial socket and the TV.
- Your local Television Service Centre or dealer may be able to assist you in obtaining the correct aerial system for your particular area and the accessories required.
- Any matters regarding aerial installation, upgrading of existing systems or accessories required, and the costs incurred, are the responsibility of you, the Customer.

■ DVD Recorder / VCR



1 Aerial terminal
2 RF cable
3 DVD Recorder / VCR
4 Aerial
5 HDMI terminal
6 HDMI cable

■ Set top box



1 HDMI terminal
2 HDMI cable
3 Set top box
4 Satellite dish

= Note =

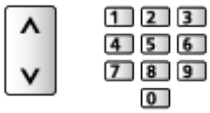
- For VIERA Link connections

  → Functions > VIERA Link “HDAVI Control™” > Summary of VIERA Link

- External equipment and cables shown are not supplied with this TV.
- Please also read the manual of the equipment being connected.
- Keep the TV away from electronic equipment (video equipment, etc.) or equipment with an infrared sensor, otherwise distortion of image / sound may occur or operation of other equipment may be affected.
- Use a fully wired HDMI compliant cable.
- Check the terminal type and cable plugs are correct when connecting.

Selecting channel

1. Select Digital TV or Analogue TV with TV.
   - The selected mode is displayed on the top left of the screen.
2. Select a channel with Channel Up / Down or Numeric buttons.



   - Press Numeric buttons to select a channel position with 2 or more-digit (e.g. 399, press 3 9 9).

■ To select a channel from the channel list

1. Display the channel list with OK.
2. Select a channel from the list with △ / ▽ and press OK to watch.

■ To select a channel using information banner

1. Display information banner with INFO if it is not displayed.
2. Select a channel with △ / ▽ and press OK to watch while the banner is displayed.

Watching > Basic > Information banner

■ To select a channel using TV Guide

- For Digital TV

1. Display TV Guide with GUIDE.
2. Select the current programme with △ / ▽ / ◁ / ▷ and press OK to access.
3. Select View with △ / ▽ and press OK to watch.

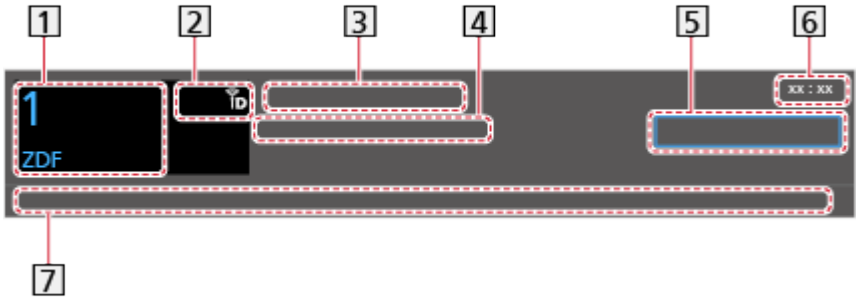
Watching > TV Guide > Using TV Guide

Information banner

Display information banner with INFO.

- Also appears when changing a channel.

  (Example)



1 Channel position and name

2 Channel type (Radio, etc.) / Encrypted channel ( ) / TV mode (,)

3 Programme

4 Start time / End time (Digital TV)

Channel position, etc. (Analogue TV)

5 Category

6 Current time

7 Features available / message meanings

Bad signal:

Poor quality TV signal

Dolby D+, Dolby D, HE-AAC:

Dolby Digital Plus, Dolby Digital or HE-AAC audio track

:

Subtitle service available

:

Multiple image or audio available

, , , :

Audio mode

Watching > For best audio > Advanced settings

1 – 90:

Off Timer remaining time

Watching > Basic > Off Timer

- To confirm another tuned channel

  △ / ▽
- To watch the channel listed in the banner

  OK
- Information on the next programme (Digital TV)

  ▷
- Extra information (Digital TV)

  INFO

  – Press again to hide the banner.
- To hide the banner

  EXIT
- To select a favourite list (Digital TV)

  (blue)

  – If the favourite list is created in Favourites Edit.

    Watching > Tuning and editing channels > Favourites Edit
- To adjust banner timeout, set Banner Display Timeout.

  1) Display the menu with MENU.
  2) Select Setup > Display Settings > Banner Display Timeout with △ / ▽ and press OK to access.
  3) Set with △ / ▽ and press OK to store.
- To change the colour type of on-screen displays, set OSD Colour.

  my Home Screen > my Home Screen > OSD Colour
- To display the introduction banner for the internet service

  1) Display the menu with MENU.
  2) Select Setup > Display Settings > Smart Banner with △ / ▽ and press OK to access.
  3) Select On / Off with △ / ▽ and press OK to set.

Option Menu

Confirm or change the current status.

1. Display the option menu with OPTION.
2. Select one of the following items with △ / ▽ and press OK to access.

   Voice Guidance Settings / Multi Video / Multi Audio / Dual Audio / Subtitle Language / MPX / Volume Correction

   - The function items vary depending on the TV mode.
3. Set with △ / ▽ / ◁ / ▷ and press OK to store.

Voice Guidance Settings

Guidance settings for visually impaired users

Watching > For best audio > Voice Guidance Settings

Multi Video

Selects from a group of multiple videos (if available).

- This setting is not memorised and it will return to the default setting once you exit the current programme.
- For Digital TV

Multi Audio

Selects between alternative languages for sound tracks (if available).

- This setting is not memorised and it will return to the default setting once you exit the current programme.
- For Digital TV

Dual Audio

Selects stereo / monaural (if available).

- For Digital TV

Subtitle Language

Selects the language for subtitles (if available).

- For Digital TV

MPX

Selects multiplex sound mode (if available).

Watching > For best audio > Advanced settings

- For Analogue TV

Volume Correction

Adjusts the volume of each individual channel or input mode.

Subtitle

Display / hide subtitles (if available) with STTL/AD.

- To select the preferred language for Digital TV subtitles (if available), press STTL/AD repeatedly.
- To set the default language, set Preferred Subtitles.

Watching > Basic > Language

= Note =

- Subtitles may not be displayed properly in 3D images.

Last view

Switch to a previously viewed channel or input mode easily with LAST VIEW.

- Press again to return to the current view.

= Note =

- Switching channel may not be available depending on the condition.
- Watching less than 10 seconds is not reflected in the previously viewed channel or input mode.

Off Timer

Turn the TV Standby mode automatically after a fixed period.

1. Display the menu with MENU.
2. Select Timer > Off Timer with △ / ▽ and press OK to access.
3. Select the time in 15-minute increments with △ / ▽ and press OK to set.

   90 / 75 / 60 / 45 / 30 / 15 / Off (minutes)

- To cancel, set to Off or turn the TV off.
- The remaining time displays on the information banner.

Watching > Basic > Information banner

- When the remaining time is less than 3 minutes, the remaining time will flash on the screen.

Energy saving functions

The TV can be eco-friendly using energy-saving functions.

The TV will automatically go into Standby mode in the following conditions:

- Eco Navigation is set to Set to Eco.
- Off Timer is active.

  → Watching > Basic > Off Timer
- No operation is performed for 4 hours while Auto Standby is set to On.
- No signal is received and no operation is performed for 10 minutes while No signal Power off is set to On.

= Note =

- This function does not affect the recording.

■ Auto Standby

1. Display the menu with MENU.
2. Select Timer > Auto Standby with △ / ▽ and press OK to access.
3. Select On / Off with △ / ▽ and press OK to set.

Auto Standby

(On / Off)

Automatically turns the TV to Standby mode for energy saving when no operation is performed for 4 hours.

- Automatic input switching with the connected equipment affects this function and time-count will be reset.
- The notification message will appear 3 minutes before going into Standby mode.

■ No signal Power off

1. Display the menu with MENU.
2. Select Timer > No signal Power off with △ / ▽ and press OK to access.
3. Select On / Off with △ / ▽ and press OK to set.

No signal Power off

(On / Off)

Automatically turns the TV to Standby mode to prevent unnecessary power consumption when no signal is received and no operation is performed for 10 minutes.

- The notification message will appear 3 minutes before going into Standby mode.

■ Eco Navigation

Automatically sets the TV to the most suitable energy-saving mode.

The concerned items and their current settings are displayed. Select Set to Eco to set them to the energy-saving settings at once.

1. Display the menu with MENU.
2. Select Setup > Eco Navigation with △ / ▽ and press OK to access.
3. Select Set to Eco with ◁ / ▷ and press OK to set.

- Auto Standby and No signal Power off are active when Eco Navigation is set to Set to Eco.

Adjusting time

Settings for the system time of this TV.

1. Display the menu with MENU.
2. Select Timer > Clock Settings with △ / ▽ and press OK to access.
3. Select one of the following items with △ / ▽ and press OK to set.
4. Set with △ / ▽ / ◁ / ▷ and press OK to store.

Mode

(Auto / Manual)

Selects the clock setting mode for this TV.

- Set to Auto to adjust the time automatically using the time information from the digital broadcast. Set to Manual to adjust manually.

Date

Sets the current date manually.

Time

Sets the current time manually.

Language

1. Display the menu with MENU.
2. Select Setup > Language with △ / ▽ and press OK to access.
3. Select one of the following items with △ / ▽ / ◁ / ▷ and press OK to access.

   OSD Language / Preferred Audio / Preferred Subtitles
4. Set with △ / ▽ / ◁ / ▷ and press OK to store.

OSD Language

Changes language for on-screen displays.

Preferred Audio

Selects the default language for Digital TV multi audio (depending on the broadcaster).

Preferred Subtitles

Selects the default language for Digital TV subtitles (depending on the broadcaster).

- To display subtitles

  Watching > Basic > Subtitle

4K resolution

4K compatible equipment

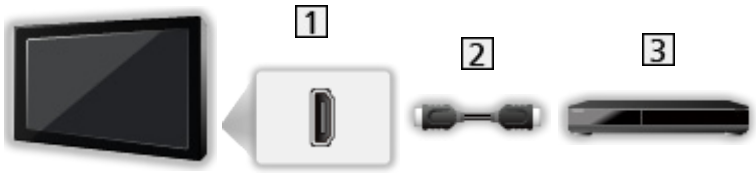
You can watch the contents of 4K format that have twice the horizontal and vertical resolution of the 1080p signal.

- For valid 4K format

  Watching > 4K resolution > Valid 4K format

- Connect the 4K compatible equipment to HDMI4 using a 4K compatible cable and you can watch contents of 4K format.

■ 4K compatible equipment



1 HDMI4 terminal

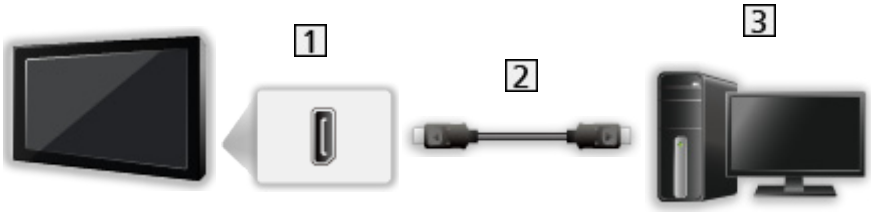
2 HDMI cable

3 4K compatible equipment

- Check the terminal type and cable plugs are correct when connecting.
- Use a fully wired HDMI compliant cable.

PC

■ PC



1 DisplayPort™

2 DisplayPort cable

3 PC

- Please use DisplayPort 1.2 compliant cable. In some case using DisplayPort 1.2 NON-compliant cable or mini DisplayPort connector adaptor, there will be malfunctions that TV couldn't display higher resolution (e.g. 4K).
- Check the terminal type and cable plugs are correct when connecting.
- To select the signal stream, set DisplayPort Settings.

  → Watching > 4K resolution > DisplayPort Settings

HDMI4 HDCP Setting

1. Display the menu with MENU.
2. Select Setup > HDMI4 HDCP Setting with △ / ▽ and press OK to access.
3. Set with △ / ▽ and press OK to store.

HDMI4 HDCP Setting

(2.2 / 1.4)

Select a version of HDCP according to the content you watch.

- HDCP is a technology of copy protection for digital audio / video contents.
- For HDMI4 terminal

DisplayPort Settings

1. Display the menu with MENU.
2. Select Setup > DisplayPort Settings > Stream Setting with △ / ▽ and press OK to access.
3. Set with △ / ▽ and press OK to store.

Stream Setting

(Auto / Single Stream)

Selects DisplayPort signal stream.

Auto:

Automatically selects the signal stream for multi stream.

Single Stream:

For single stream

- For DisplayPort input

Valid 4K format

■ Valid 4K format (HDMI4 / DisplayPort)

● 4K UHD

3 840 × 2 160 (60p, 50p, 30p, 25p, 24p)

– Aspect is fixed to 16:9.

● DCI 4K

4 096 × 2 160 (60p, 50p, 30p, 25p, 24p)

– Actual resolution is 3 840 × 2 160p.

– Selectable aspect is 16:9, H Full or V Full.

= Note =

- The above signals are reformatted for optimal viewing on your display.
- 3D content of 4K format is not supported.
- The broadcast of 4K format is not supported.
- For details of aspect

→ Watching > For best picture > Aspect

External equipment

External connection

These diagrams show our recommendations for connection of your TV to various pieces of equipment. For other connections, consult the instructions for each piece of equipment.

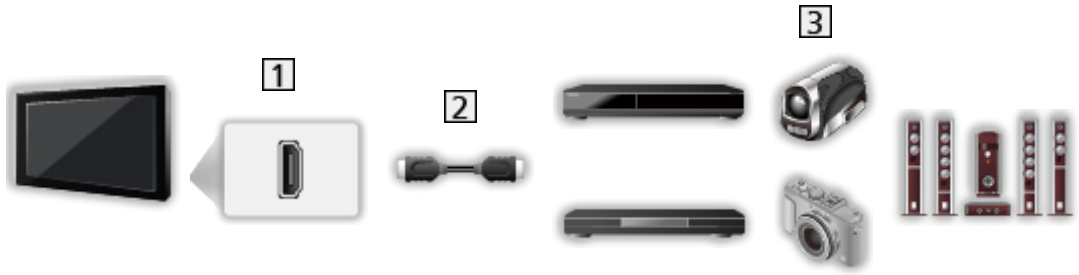
- For basic connection

  Watching > Basic > Basic connection

- Check the terminal type and cable plugs are correct when connecting.
- To use the specific devices supporting Bluetooth wireless technology

  Functions > Bluetooth devices

■ HDMI equipment



1 HDMI terminal

2 HDMI cable

3 Recorder / Player / 3D compatible player / Set top box / Camcorder / Amplifier with speaker system

= Note =

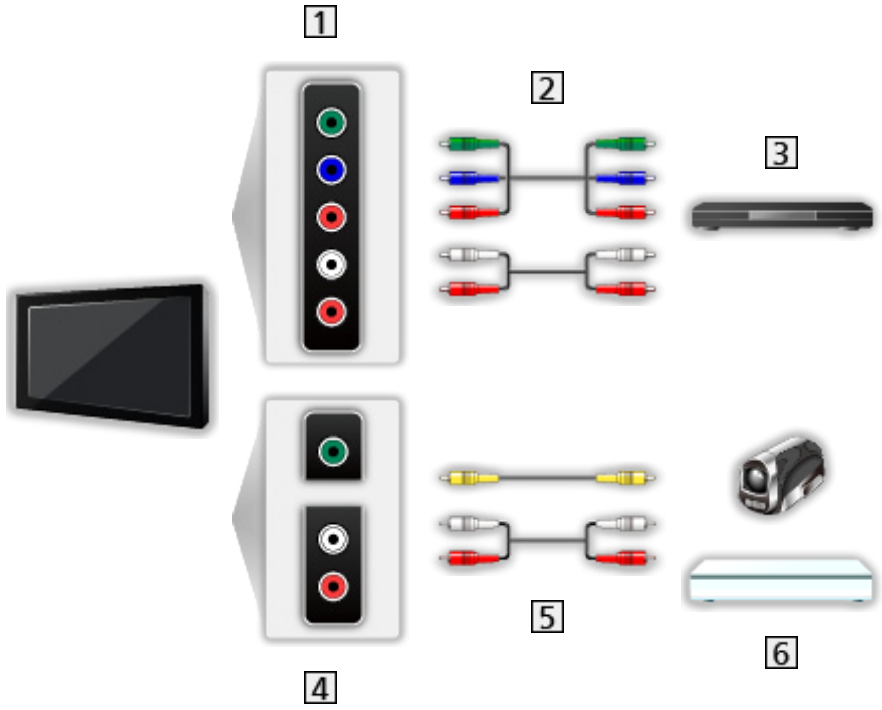
- Use a fully wired HDMI compliant cable.
- For VIERA Link connections

  Functions > VIERA Link “HDAVI Control™” > Summary of VIERA Link

- Use HDMI2 or HDMI4 for connecting an amplifier and match the output setting in ARC Output in the Sound menu. This connection is applicable when using an amplifier that has ARC (Audio Return Channel) function.

  Watching > For best audio > Advanced settings

■ AV devices



1 AV IN (COMPONENT) terminals
2 Component cables
3 DVD Player
4 AV IN (VIDEO) terminals
5 Composite cables
6 Camcorder / Game equipment

■ USB devices

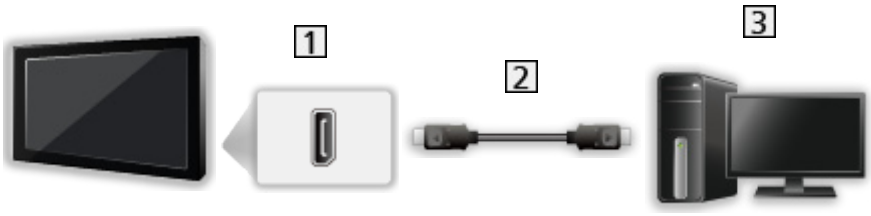
1 USB port
2 USB cable
3 USB HDD

= Note =

- It is recommended to connect the device to the TV's USB port directly.
- You cannot use two or more of the same kind of USB devices simultaneously except USB Flash Memory or USB HDD.
- Use USB 3 port for connecting the USB HDD.
- You cannot use two or more of the same kind of USB devices simultaneously except USB Flash Memory.
- Some USB devices or USB HUB may not be used with this TV.
- You cannot connect any devices by using USB card reader.
- Additional information for the devices may be on the following website.

  http://panasonic.net/viera/support (English only)

■ PC



1 DisplayPort™

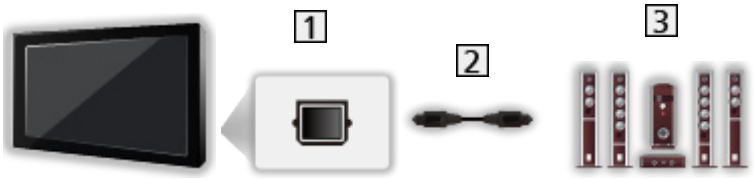
2 DisplayPort cable

3 PC

- Please use DisplayPort 1.2 compliant cable. In some case using DisplayPort 1.2 NON-compliant cable or mini DisplayPort connector adaptor, there will be malfunctions that TV couldn't display higher resolution (e.g. 4K).
- To select the signal stream, set DisplayPort Settings.

  → Watching > 4K resolution > DisplayPort Settings

■ To listen with speakers



1 DIGITAL AUDIO OUT

2 Optical digital audio cable

3 Amplifier with speaker system

- To enjoy multi-channel sound from external equipment (e.g. Dolby Digital 5.1ch), connect the equipment to the amplifier. For the connections, read the manuals of the equipment and amplifier.
- To select the sound output, set TV Speaker.

→ Watching > For best audio > Volume settings

Watching external input

Connect the external equipment (VCR, DVD, etc.) and you can watch through the input.

1. Display the input selection menu with AV.
2. Select the input mode connected to the equipment with △ / ▽ and press OK to watch. (The selected mode is displayed on the top left of the screen.)

- You can also select the input pressing AV. Press repeatedly until the desired input is selected.
- To switch between COMPONENT and VIDEO in AV, select with ◁ / ▷.
- You can label or skip each input mode. Skipped inputs will not be displayed when AV is pressed. (Input Labels)
- The remote control is capable of operating the contents or external equipment.

→ Watching > External equipment > Operating with TV's remote control

- To return to TV mode

TV

= Note =

- If the external equipment has an aspect adjustment function, set it to 16:9.
- For details, read the manual of the equipment or ask your local dealer.

■ Input Labels

Accesses the input labels list to select the label of each input mode or set to skip unconnected one for easier identification and selection in Input Selection or banner.

Watching > Basic > Information banner

1. Display the menu with MENU.
2. Select Setup > Display Settings > Input Labels with △ / ▽ and press OK to access.
3. Set with △ / ▽ / ◁ / ▷ and press OK to set.

- To name each input mode freely, select User input and set characters (maximum 10 characters).
- To skip the input mode, select Skip.

■ Playing Time Display

Set to On to display a time period of continuous use in Game mode on the top right of the screen every 30 minutes.

1. Display the menu with MENU.
2. Select Setup > Display Settings > Playing Time Display with △ / ▽ and press OK to access.
3. Select On / Off with △ / ▽ and press OK to set.

- This function is available when Game Mode is set to On.

Operating with TV's remote control

You can operate the contents in Media Player / media server, recording functions or the connected equipment with the below buttons of this TV's remote control.

▶ :

Playback (VCR / DVD / video content)

■ :

Stop the operations

⏮ :

Rewind, view the picture rapidly in reverse (VCR)

Skip to the previous track, title or chapter (DVD / video content)

◀◀ :

Rewind, view the picture rapidly in reverse (VCR)

Search backward (DVD / video content)

⏭ :

Fast-forward, view the picture rapidly forward (VCR)

Skip to the next track, title or chapter (DVD / video content)

⏩ :

Fast-forward, view the picture rapidly forward (VCR)

Search forward (DVD / video content)

⏸ :

Pause / Resume

Press and hold to play at slow speed (DVD)

⏺ :

One Touch Recording

Recording > Recording current programme > One Touch Recording

■ How to change the code

Each Panasonic product has its own remote control code. Change the code according to the product for operation.

1. Press and hold Standby On / Off switch during the following operations.

2. Enter the appropriate code as follows with Numeric buttons.

- Codes for each product and features

  70: DVD Recorder, DVD Player, Blu-ray Disc Player

  71: Player theatre, Blu-ray Disc theatre

  72: VCR

  73 (default):

  Using in USB HDD recording, Media Player, DLNA features or VIERA Link

3. Press ■ to change.

= Note =

- Confirm if the remote control works correctly after changing the code.
- The codes may be reset to defaults if batteries are replaced.
- Some operations may not be available depending on the equipment.

HDMI features

HDMI (high-definition multimedia interface) is the world's first complete digital consumer AV interface complying with a non-compression standard.

HDMI allows you to enjoy high-definition digital images and high-quality sound by connecting the TV and the equipment.

HDMI-compatible equipment* with an HDMI or DVI output terminal, such as a DVD player, a set top box or game equipment, can be connected to the HDMI terminal using a fully wired HDMI compliant cable.

→ Watching > External equipment > External connection

*: The HDMI logo is displayed on HDMI-compliant equipment.

■ Applicable HDMI features

- Input audio signal:

  2ch Linear PCM (sampling frequencies - 48 kHz, 44.1 kHz, 32 kHz)

- Input video signal:

  Matches the output setting of the digital equipment.

  → Watching > External equipment > Valid input signals

- VIERA Link (HDAVI Control 5)

  → Functions > VIERA Link "HDAVI Control™" > Summary of VIERA Link

- Content Type
- Deep Colour
- Audio Return Channel
  - Audio Return Channel (ARC) is a function to send digital sound signals via an HDMI cable.
  - For HDMI2 / HDMI4 terminals
  - Match the output setting in ARC Output in the Sound menu.

    → Watching > For best audio > Advanced settings

- 3D
- x.v.Colour™

■ DVI connection

If the external equipment has only a DVI output, connect to the HDMI terminal via a DVI to HDMI adaptor cable. When using the DVI to HDMI adaptor cable, connect the audio cable to the audio input terminal (use AV IN audio terminals).

- Enquire HDMI adaptor cable at your local digital equipment retailer shop.

= Note =

- Audio settings can be made on HDMI Input in the Sound Menu.

  Watching > For best audio > Advanced settings

- If the connected equipment has an aspect adjustment function, set the aspect ratio to “16:9”.
- These HDMI connectors are “type A”.
- These HDMI connectors are compatible with HDCP (High-Bandwidth Digital Content Protection) copyright protection.
- Equipment having no digital output terminal may be connected to the input terminal of component or video to receive analogue signals.
- This TV incorporates HDMI™ technology.

Valid input signals

■ COMPONENT, HDMI

Signal name	COMPONENT	HDMI
525 (480) / 60i, 60p	○	○
625 (576) / 50i, 50p	○	○
750 (720) / 60p, 50p	○	○
1 125 (1 080) / 60i, 50i	○	○
1 125 (1 080) / 60p, 50p, 24p		○
3 840 × 2 160 / 60p, 50p, 30p, 25p, 24p		○ *
4 096 × 2 160 / 60p, 50p, 30p, 25p, 24p		○ *

*: For HDMI4 only

○: Applicable input signal

■ DisplayPort

Signal name	DisplayPort
750 (720) / 60p, 50p	○
1 125 (1 080) / 60p, 50p, 30p, 25p, 24p	○
3 840 × 2 160 / 60p, 50p, 30p, 25p, 24p	○
4 096 × 2 160 / 60p, 50p, 30p, 25p, 24p	○
640 × 480	○
800 × 600	○
1 024 × 768	○
1 280 × 768	○
1 360 × 768	○
1 366 × 768	○
1 280 × 1 024	○
2 560 × 1 440	○

○: Applicable input signal

= Note =

- Signals other than above may not be displayed properly.
- The above signals are reformatted for optimal viewing on your display.

For best picture

Viewing Mode

1. Display the menu with MENU.
2. Select Picture > Viewing Mode with △ / ▽ and press OK to access.
3. Select the mode with △ / ▽ and press OK to set.

Viewing Mode

(Dynamic / Normal / Cinema / THX Cinema / THX Bright Room / True Cinema / Monitor / Custom / Professional1 / Professional2)

Selects your favourite picture mode for each input.

Dynamic:

Improves contrast and sharpness for viewing in a bright room.

Normal:

Normal use for viewing in a normal lighting condition.

Cinema:

Improves the performance of contrast, black and colour reproduction for watching movies in a darkened room.

THX Cinema*:

Reproduces the original image quality precisely in a darkened room.

- Not valid in 3D mode

THX Bright Room*:

Reproduces the original image quality precisely in a bright room.

- Not valid in 3D mode

True Cinema:

Reproduces the original image quality precisely without any revision.

Monitor:

Reproduces the original image quality of graphic contents.

- For HDMI and DisplayPort input

Custom:

Adjusts each menu item manually to suit your favourite picture quality.

Professional1 / 2:

Allows you to set and lock the professional picture settings.

Watching > For best picture > Advanced Settings

- If a certified professional dealer sets these modes, Professional1 and Professional2 may be displayed as isf Day and isf Night.

In each Viewing Mode, Backlight, Contrast, Brightness, Colour, Tint, Sharpness, Colour Temperature, Vivid Colour, Adaptive Backlight Control, Letterbox, Ambient Sensor, Noise Reduction, MPEG Remaster, Resolution Remaster, Caption Smoother, Brilliance Enhancer, Intelligent Frame Creation and 24p Smooth Film can be adjusted and stored.

When in Cinema, True Cinema, Monitor, Custom or Professional1 / 2, Advanced Settings can be adjusted additionally. The settings in True Cinema, Monitor, Custom or Professional1 / 2 can be stored for each input.

- You can set Viewing Mode in 2D and 3D mode for each.

*: THX modes are used to mirror the picture settings used by professional filmmakers, faithfully reproducing the image quality of THX Certified movies. THX Certified movies have the THX logo on the disc. THX modes are not available for photo contents or internet services.

Ambient Sensor

1. Display the menu with MENU.
2. Select Picture > Ambient Sensor with △ / ▽ and press OK to access.
3. Select On / Off with △ / ▽ and press OK to set.

Ambient Sensor

(On / Off)

- Automatic Brightness Control function

Adjusts picture settings automatically depending on ambient lighting conditions.

Aspect

Change the aspect ratio (image size) with ASPECT.

■ To change the aspect ratio manually

1. Display Aspect Selection with ASPECT.
2. Select the mode with △ / ▽ and press OK to set.

- You can also change the mode pressing ASPECT.

  (Press repeatedly until you reach the desired mode.)

16:9:

Directly displays the image at 16:9 without distortion (anamorphic).

14:9:

Displays the image at the standard 14:9 without distortion.

Just:

Displays a 4:3 image full-screen. Stretching is only noticeable at the left and right edges.

4:3:

Displays the image at the standard 4:3 without distortion.

Zoom:

Displays a 16:9 letterbox or 4:3 image without distortion.

4:3 Full:

Displays a 4:3 image enlarged horizontally to fit the screen.

- For HD (High definition) signals

Sidecut Just:

Displays a 16:9 letterbox (anamorphic) image full-screen. Stretching is only noticeable at the left and right edges.

- For HD (High definition) signals

Sidecut Zoom:

Displays a 16:9 letterbox (anamorphic) image full-screen without distortion.

- For HD (High definition) signals

H Full:

Displays the image enlarged horizontally to fit the screen without distortion.

- For DCI 4K format

V Full:

Displays the image enlarged vertically to fit the screen without distortion.

- For DCI 4K format

= Note =

- Display the image (TV, external input, etc.) full-screen to use this function completely.
- Aspect mode can be memorised separately for SD (Standard definition) and HD (High definition) signals.
- Aspect is fixed to 16:9 when watching the content of 4K format except DCI 4K.
- Only 16:9 and 4:3 are available for PC signal from DisplayPort input.
- Aspect cannot be changed in 3D format signals.

Basic settings

1. Display the menu with MENU.
2. Select Picture with △ / ▽ and press OK to access.
3. Select one of the following items with △ / ▽ and press OK to access.

   Backlight / Contrast / Brightness / Colour / Tint / Sharpness / Colour Temperature / Vivid Colour / Colour Remaster / Reversal Film Effect / Adaptive Backlight Control / Letterbox / Resolution Remaster / Caption Smoother / Brilliance Enhancer / Intelligent Frame Creation / 24p Smooth Film
4. Set with △ / ▽ / ◁ / ▷ and press OK to store.

Backlight, Contrast, Brightness, Colour, Tint, Sharpness

Adjusts the levels of these options according to your personal preference.

- Sharpness is not available when 1080p Pixel by 4pixels is set to On.

Colour Temperature

Sets the overall colour tone of the picture (bluer - redder).

Vivid Colour

(On / Off)

Automatically adjusts colours to vivid ones.

Colour Remaster

(Max / Min / Off)

Displays the vivid images with the expanded colour gamut.

- For HDMI input or video contents of Media Player
- Not valid when Viewing Mode is THX modes

Reversal Film Effect

(Max / Min / Off)

Provides the picture effect such as the reversal film for photo contents.

- For HDMI input or photo contents of Media Player
- Not valid when Viewing Mode is THX modes

Adaptive Backlight Control

Automatically controls the level of backlight according to the images.

Letterbox

(Dimmer / Normal)

Adjusts the black level of the letterbox (anamorphic) area for watching movies, etc.

Resolution Remaster

(Auto / Max / Mid / Min / Off)

Enhances picture resolution to make the image sharper.

- Not valid when 1080p Pixel by 4pixels is set to On

Caption Smoother

(Auto / Max / Mid / Min / Off)

Makes caption contours smooth. Specially effective for low resolution contents.

- Not valid in 3D mode or when 1080p Pixel by 4pixels is set to On

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Brilliance Enhancer

(Max / Mid / Min / Off)

Enhances picture contrast locally to increase picture brilliance.

- Not valid in 3D mode or when 1080p Pixel by 4pixels is set to On

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Intelligent Frame Creation

(Max / Mid / Min / Off)

Automatically compensates the picture frame rate and removes juddering movements to make the images smooth.

- Depending on the contents, images may be noisy. To prevent the noise, change the setting.
- Not valid for photo contents of Media Player / Network services or when Game Mode is set to On or when aspect is set to H Full

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24p Smooth Film

(Max / Mid / Min / Off)

Automatically compensates the picture frame rate to make the 24p source movie images smooth.

- This function is available only for 24p signal input and displayed instead of Intelligent Frame Creation.
- Not valid for photo contents of Media Player / Network services or when Game Mode is set to On or when aspect is set to H Full

Noise reduction settings

1. Display the menu with MENU.
2. Select Picture > Noise Reduction / MPEG Remaster with △ / ▽ and press OK to access.
3. Set with △ / ▽ and press OK to store.

Noise Reduction

(Auto / Max / Mid / Min / Off)

Reduces unwanted picture noise.

MPEG Remaster

(Auto / Max / Mid / Min / Off)

Reduces flicker noise in contoured parts of a picture and block noise.

Advanced Settings

You can adjust and set up the detailed picture settings when Viewing Mode is set to Cinema, True Cinema, Monitor, Custom or Professional1 / 2. The settings in True Cinema, Monitor, Custom or Professional1 / 2 can be stored for each input.

Watching > For best picture > Viewing Mode

1. Select the input mode with AV or TV.
2. Display the menu with MENU.
3. Select Picture > Viewing Mode with △ / ▽ and press OK to access.
4. Select the mode with △ / ▽ and press OK to set.

   Cinema / True Cinema / Monitor / Custom / Professional1 / Professional2

■ Adjust the detailed picture settings

1. Display the menu with MENU.
2. Select Picture > Advanced Settings with △ / ▽ and press OK to access.
3. Select one of the following items with △ / ▽ and press OK to access.

   Contrast Control / Colour Gamut / White Balance / Colour Management / Gamma / Reset to Defaults
4. Set with △ / ▽ / ◁ / ▷ and press OK to store.

■ Contrast Control

Contrast Control

(Auto / Custom / Off)

Automatically adjusts the detailed contrast settings. Select Custom to set Contrast Control Setting manually.

Contrast Control Setting

Adaptive Gamma Control:

Adjusts the gamma curve to make the image brighter.

Black Expander:

Gradually adjusts the shades of black.

Clear White Effect:

Makes the white area clearer.

Reset to Defaults:

Resets items of Contrast Control Setting.

■ Colour Gamut

Colour Gamut

(Native / Rec. 709 / SMPTE-C / EBU)

Reproduces image colour precisely according to the colour gamut standards.

Native:

Displays deep colours by expanding the colour gamut to its maximum.

Rec. 709:

Standard for HD (High definition)

SMPTE-C:

Standard for NTSC

EBU:

Standard for PAL

- For HDMI input or video contents of Media Player (when Colour Remaster and Reversal Film Effect are set to Off)

■ White Balance

R-Gain / G-Gain / B-Gain

Adjusts the white balance of bright red / green / blue areas.

R-Cutoff / G-Cutoff / B-Cutoff

Adjusts the white balance of dark red / green / blue areas.

More Detailed Adjustment

Adjusts more detailed items of White Balance.

Input Signal Level:

Adjusts the input signal level.

R-Gain / G-Gain / B-Gain:

Adjusts the detailed white balance of bright red / green / blue areas.

Reset to Defaults:

Resets items of More Detailed Adjustment.

Reset to Defaults

Resets White Balance to the default settings.

■ Colour Management

R-Hue / R-Saturation / R-Luminance

Adjusts the picture hue / saturation / luminance of red areas.

G-Hue / G-Saturation / G-Luminance

Adjusts the picture hue / saturation / luminance of green areas.

B-Hue / B-Saturation / B-Luminance

Adjusts the picture hue / saturation / luminance of blue areas.

More Detailed Adjustment

Adjusts more detailed items of Colour Management.

Y-Hue / C-Hue / M-Hue:

Adjusts the picture hue of yellow / cyan / magenta areas.

Y-Saturation / C-Saturation / M-Saturation:

Adjusts the saturation of yellow / cyan / magenta areas.

Y-Luminance / C-Luminance / M-Luminance:

Adjusts the luminance of yellow / cyan / magenta areas.

Reset to Defaults:

Resets items of More Detailed Adjustment.

Reset to Defaults

Resets Colour Management to the default settings.

■ Gamma

Gamma

Switches the gamma curve.

- Please note the numerical values are reference for the adjustment.

More Detailed Adjustment

Adjusts more detailed items of Gamma.

Input Signal Level:

Adjusts the input signal level.

Gain:

Adjusts the gain of gamma for selected signal level.

Reset to Defaults:

Reset items of More Detailed Adjustment.

Reset to Defaults

Reset Gamma to the default settings.

■ Reset to Defaults

Reset to Defaults

Resets Advanced Settings to the default settings.

Option Settings

1. Display the menu with MENU.
2. Select Picture > Option Settings with △ / ▽ and press OK to access.
3. Select one of the following items with △ / ▽ and press OK to access.

   Game Mode / Film Cadence Mode / 1080p Pure Direct / 4K Pure Direct / 1080p Pixel by 4pixels / HDMI Content Type / DisplayPort Content Type / HDMI RGB Range / DisplayPort RGB Range / AV Colour System / 3D-COMB
4. Set with △ / ▽ and press OK to store.

Game Mode

(On / Off)

Provides suitable images for fast response signals when playing games.

- Not valid in TV mode
- To display a continuous record of time spent using Game mode, set Playing Time Display.

Film Cadence Mode

(On / Off)

Improves vertical resolution for movie images.

- This function is available for interlaced signals (except in Network services or when Game Mode is set to On).

1080p Pure Direct

(On / Off)

Reproduces the original image quality in detail for 1080p (HDMI / DisplayPort) input signal.

- Not valid in 3D mode or when 1080p Pixel by 4pixels is set to On

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4K Pure Direct

(On / Off)

Reproduces the original image quality in detail for 4K (HDMI / DisplayPort) input signal.

- Not valid in 3D mode

1080p Pixel by 4pixels

(On / Off)

Displays like pixel by pixel to make the image sharper for 1080p signal.

- For HDMI and DisplayPort input
- Not all image may be displayed as pixel by pixel precisely.
- Not valid in 3D mode

HDMI Content Type

(Graphics / Photos / Auto / Off)

Adjusts the picture settings of each HDMI input according to the selected content type.

Auto:

Automatically adjusts the picture settings according to the received HDMI content if the connected equipment supports HDMI Content Type.

- To set the availability of each content type for Auto mode, select Auto Detail Setting.
- For HDMI input

DisplayPort Content Type

(Graphics / Photos / Off)

Adjusts the picture settings of DisplayPort input according to the selected content type.

- For DisplayPort input

HDMI RGB Range

(Auto / Full / Normal)

Adjusts the black level of the image for each HDMI input.

- When the black level is not suitable, select Full.
- For HDMI input

DisplayPort RGB Range

(Auto / Full / Normal)

Adjusts the black level of the image for DisplayPort input.

- When the black level is not suitable, select Full.
- For DisplayPort input

AV Colour System

(Auto / PAL / SECAM / M.NTSC / NTSC)

Selects optional colour system based on video signals.

- For AV input

3D-COMB

(On / Off)

Makes still or slow moving pictures more vivid.

- Occasionally, while viewing still or slow moving pictures, colour patterning may be seen. Set to On to display sharper and more accurate colours.
- For PAL / NTSC signal reception in TV mode or from composite connection

Screen Settings

1. Display the menu with MENU.
2. Select Picture > Screen Settings with △ / ▽ and press OK to access.
3. Select one of the following items with △ / ▽ and press OK to access.

   16:9 Overscan / H-Size / Zoom Adjustments / Screen Display

4. Set with △ / ▽ and press OK to store.

16:9 Overscan

(On / Off)

Selects the screen area displaying the image for 16:9 aspect.

On:

Enlarges the image to hide the edge of the image.

Off:

Displays the image in the original size.

- Set to On if noise occurs on the edge of the screen.
- This function can be memorised for SD (Standard definition) and HD (High definition) signals respectively.
- Not valid for 4K contents, Network services or when 1080p Pixel by 4pixels is set to On

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H-Size

(H-Size1 / H-Size2)

Switches the horizontal display range to reduce noise on the side edge of the image.

- For TV mode, AV, HDMI, DisplayPort input
- Not valid for 4K contents, 3D mode or when 1080p Pixel by 4pixels is set to On

---

Zoom Adjustments

Adjusts the vertical position and size when aspect is set to Just, Sidecut Just, Zoom or Sidecut Zoom.

- Not valid for 4K contents

Screen Display

(On / Off)

Turns the screen off when you select Off.

- This function is effective in reducing power consumption when listening to the sound without watching the TV screen.
- Press any buttons (except Standby On / Off switch) to turn the screen on.

Lock Settings

Locks the settings of Professional1 / 2 for each input.

1. Display the menu with MENU.
2. Select Picture > Lock Settings with △ / ▽ and press OK to access.
3. Enter the PIN number (4 digits) with Numeric buttons.

   - Enter the PIN number twice at first setting.
   - Make a note of the PIN number in case you forget it.
4. Select Adjustment Lock with △ / ▽ and press OK to access.
5. Select On with △ / ▽ and press OK to set.

- Backlight, Contrast, Brightness, Colour, Tint, Sharpness, Colour Temperature, Vivid Colour, Adaptive Backlight Control, Resolution Remaster, Caption Smoother, Brilliance Enhancer, Advanced Settings and Reset to Defaults in the Picture Menu can be locked.

■ To change the PIN number

1. Select Change PIN with △ / ▽ and press OK to access.
2. Enter a new PIN number twice with Numeric buttons.

Copy Adjustment

Copies the picture settings of True Cinema, Monitor, Custom, Professional1 or Professional2 to those of another input or another Viewing Mode.

1. Display the menu with MENU.
2. Select Picture > Copy Adjustment > Destination Viewing Mode / Destination Input with △ / ▽ and press OK to access.
3. Select the destination to copy to with △ / ▽ and press OK to set.
4. Select Copy Start with △ / ▽ and press OK to copy.
5. When the confirmation screen is displayed, select Yes with ◁ / ▷ and press OK to set.

= Note =

- Option Settings, Screen Settings and 3D Settings will not be copied.
- You cannot copy to the locked mode.

For best audio

Sound mode

1. Display the menu with MENU.
2. Select Sound > Mode with △ / ▽ and press OK to access.
3. Select the mode with △ / ▽ and press OK to set.

Mode

(Standard / Music / Ambience / User)

Selects your favourite sound mode for each input.

Standard:

Provides the suitable sound quality for all types of scenes.

Music:

Improves sound quality for watching music videos, etc.

Ambience:

Improves spatial effects and provides clear sounds.

User:

Adjusts the sounds manually using the equaliser to suit your favourite sound quality.

- In each mode, Bass, Treble, Surround, Bass Boost and Digital Remaster can be adjusted and stored.
- For the User mode, Equaliser will be available in the Sound Menu instead of Bass and Treble. Select Equaliser and adjust the frequency.

Watching > For best audio > Basic settings

- This function is effective only for the sound from TV speakers.

Basic settings

1. Display the menu with MENU.
2. Select Sound with △ / ▽ and press OK to access.
3. Select one of the following items with △ / ▽ and press OK to access.

   Bass / Treble / Equaliser / Balance / Surround / Bass Boost / Digital Remaster
4. Set with △ / ▽ / ◁ / ▷ and press OK to store.

Bass

Adjusts level to enhance or minimise lower, deeper sound output.

Treble

Adjusts level to enhance or minimise sharper, higher sound output.

Equaliser

Adjusts the frequency level to suit your favourite sound quality.

- This function is available when Mode is set to User.
- Select the frequency and change the frequency level using △ / ▽.
- To enhance the bass sound, raise the level of the lower frequency. To enhance the treble sound, raise the level of the higher frequency.
- To reset the levels of each frequency to the default settings, select Reset to Defaults with ◁ / ▷ and press OK.
- This function is effective only for the sound from TV speakers.

Balance

Adjusts volume level of right and left speakers.

Surround

(Stadium / Hall / Natural / Off)

Selects surround sound settings.

Stadium:

Provides the sound effect such as a stadium.

Hall:

Provides the sound effect such as a concert hall.

Natural:

Controls the reverberation to make the voice sound clearer.

- This function is effective only for the sound from TV speakers.

Bass Boost

(On / Off)

Enhances the effect of bass sounds.

- This function is effective only for the sound from TV speakers.

Digital Remaster

(On / Off)

Compensates a compressed audio signal to reproduce the original sound quality.

- This function is effective only for the sound from TV speakers.

Volume settings

1. Display the menu with MENU.
2. Select Sound with △ / ▽ and press OK to access.
3. Select one of the following items with △ / ▽ and press OK to access.

   TV Speaker / Auto Gain Control / Volume Correction / Speaker Distance to Wall
4. Set with △ / ▽ / ◁ / ▷ and press OK to store.

TV Speaker

(On / Off)

Set to Off when using the external speakers.

Auto Gain Control

(On / Off)

Automatically regulates large sound level differences between channels and inputs.

Volume Correction

Adjusts the volume of each individual channel or input mode.

Speaker Distance to Wall

(Up to 30cm / Over 30cm)

Compensates for the low frequency sound due to the distance between the speakers and the wall.

- If the back space between the TV and wall is within 30 cm, Up to 30cm is recommended.
- If the back space between the TV and wall is over 30 cm, Over 30cm is recommended.
- This function is effective only for the sound from TV speakers.

Voice Guidance Settings

1. Display the menu with MENU.
2. Select Sound > Voice Guidance Settings with △ / ▽ and press OK to access.
3. Select one of the following items with △ / ▽ and press OK to access.

   Voice Guidance / Speed / Volume / Language / User Level / Web Browser
4. Set with △ / ▽ / ◁ / ▷ and press OK to store.

Voice Guidance

(On / Off)

Set to On to enable voice guidance of the basic features (on-screen messages, etc.) for visually impaired users.

Speed

(Fast / Normal / Slow)

Selects the readout speed for the voice guidance.

Volume

(Max / Mid / Min)

Selects the volume for the voice guidance.

Language

Changes language for the voice guidance.

- All languages may not be available. When the selected language is not supported, Language is set to English automatically.

User Level

(Beginner / Expert)

Selects the level of verbosity for the voice guidance.

Web Browser

(On / Off)

Set to On to enable voice guidance of the network contents in web browser function.

Advanced settings

1. Display the menu with MENU.
2. Select Sound with △ / ▽ and press OK to access.
3. Select one of the following items with △ / ▽ and press OK to access.

   MPX / Audio Preference / SPDIF Selection / HDMI Input / DisplayPort Input / ARC Output
4. Set with △ / ▽ and press OK to store.

MPX

Selects multiplex sound mode (if available).

Stereo:

Use this normally.

Mono:

When stereo signal cannot be received

M1 / M2:

Available while mono signal is transmitted

- For Analogue TV

When you receive the stereo / bilingual sound system, sound output modes can be selected by using the MPX in the Sound Menu.

- Meanings of mode indicators

  ∞ : STEREO

  Ⅰ : MAIN I

  Ⅱ : SUB II

  ∇ : MONO

■ Available mode indicator for each type of broadcast

- NICAM - Used in New Zealand, Singapore, Hong Kong, etc.
  - Regular broadcast (Standard Audio): No indicator / ∇
  - Regular + NICAM MONO I (MAIN I): Ⅰ / ∇
  - NICAM STEREO: ∞ / ∇
  - NICAM DUAL MONO (MAIN I / SUB II): Ⅰ / Ⅱ / ∇

- A2 (German) - Used in Australia, Malaysia, etc.
  - Regular broadcast (Standard Audio): No Indicator / ▽
  - BILINGUAL or DUAL MONO (MAIN I / SUB II): Ⅰ / Ⅱ
  - STEREO: ∞ / ▽

= Note =

- If the stereo signal is poor or the receiving conditions are not optimum or if STEREO:MONO automatic switching occurs, it is recommended to switch from STEREO to MONO.
- Even when the contents of the receiving signal undergo changes, selection mode is kept intact.
- When the receiving conditions deteriorate, listening will be easier if the mode is set to the MONO position pressing the Sound Selection button.
- DUAL, also known as DUAL MONO or as BILINGUAL is not currently transmitted in some countries.

SPDIF Selection

(Auto / PCM)

Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT and HDMI2 / HDMI4 (ARC function) terminals.

- SPDIF is a standard audio transfer file format.

  Auto:

  Dolby Digital Plus, Dolby Digital and HE-AAC multi-channel are output as Dolby Digital Bitstream. MPEG is output as PCM. DTS is output as DTS for video contents of Media Player / Network services.

  PCM:

  Digital output signal is fixed to PCM.

- ARC (Audio Return Channel) is a function of digital audio output using HDMI cable.
- For Digital TV or video contents of Media Player / Network services

  → Media Player > Video mode > Audio output settings

  → Network > Videos > Audio output settings

HDMI Input

(Digital / Analogue)

Selects to fit the input signal.

Watching > External equipment > HDMI features

Digital:

When sound is carried via the HDMI cable connection

Analogue:

When sound is not carried via the HDMI-DVI adaptor cable connection

- For HDMI input

DisplayPort Input

(Digital / Analogue)

Selects to fit the input signal.

Digital:

When sound is carried via the DisplayPort cable connection

Analogue:

When sound is not carried via the DisplayPort cable connection

- For DisplayPort input

ARC Output

(HDMI2 / HDMI4)

Selects ARC output terminal settings.

- To use 4K compatible amplifier, connect an amplifier to HDMI4 and select HDMI4.

TV Guide

Using TV Guide

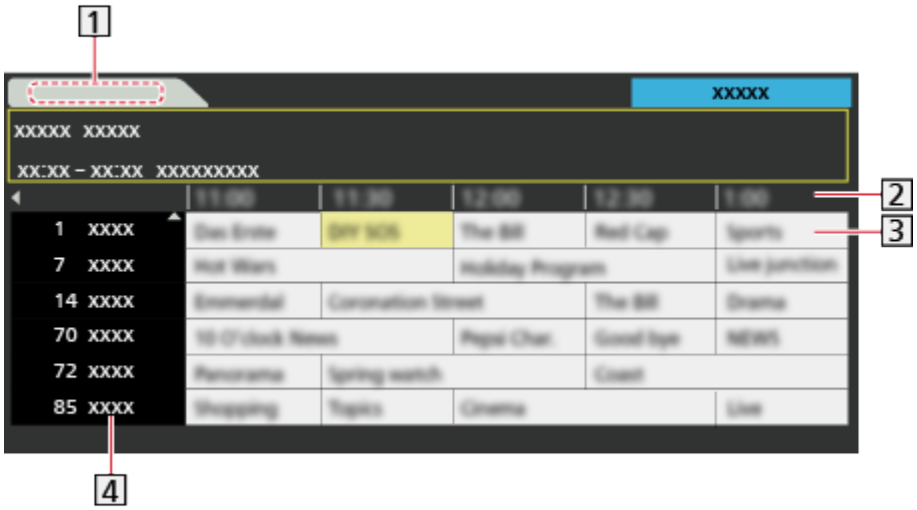
TV Guide - Electronic Programme Guide (EPG) provides an on-screen listing of the programmes currently broadcast and the forthcoming broadcasts over the next seven days (depending on the broadcasters).

- For Digital TV

1. Select Digital TV with TV.
2. Display TV Guide with GUIDE.

- Press again to change the layout. (Landscape / Portrait)
  - View Landscape to see several channels.
  - View Portrait to see one channel by time.

    (Example)



1 Date

2 Time

3 Programme

4 Channel position and name

- To watch the programme

  1) Select the current programme with △ / ▽ / ◁ / ▷ and press OK to access.

  2) Select View with △ / ▽ and press OK to watch.

     – To use Timer Programming

       → Watching > TV Guide > Timer Programming

- To the previous day

  (red)
- To the next day

  (green)
- To view a channel list of the selected favourite list

  1) Display the favourite list with (blue).

  2) Select the favourite with △ / ▽ and press OK to view.

  – To list favourite channels, set Favourites Edit.

  Watching > Tuning and editing channels > Favourites Edit
- To view more details of the programme

  1) Select the programme with △ / ▽ / ◁ / ▷.

  2) Press INFO to view.

  – Press again to return to TV Guide.
- To exit TV Guide

  EXIT

= Note =

- When this TV is turned on for the first time, or the TV is switched off for more than a week, it may take some time before TV Guide is completely shown.

Timer Programming

This function allows you to select programmes that you want to be reminded to watch or record to the USB HDD.

1. Select the forthcoming programme with △ / ▽ / ◁ / ▷ and press OK to access.
2. Select USB HDD Rec. / Reminder with △ / ▽ and press OK to set.
   - To check / change / cancel a timer event

     Recording > Timer Programming > Editing Timer Programming
   - LED will turn to orange in Standby mode if Timer Programming is set.
   - To return to TV Guide

     RETURN
   - If you select the current programme, a confirmation screen asking whether you want to watch or record the programme appears. Select Timer Programming with △ / ▽ and press OK to set USB HDD Rec. to record from the time you finish the timer event setting.

= Note =

- Not valid in Analogue TV
- Timer Programming only works reliably if correct time information is received via the signal from the broadcaster or service provider.
- No other channels can be selected while the recording of Timer Programming is in progress.
- When recording programmes to the USB HDD, be sure to format the USB HDD and enable it to record in USB Device Setup.

  Recording > USB HDD setup

3D

Note

- Display the image (TV, external input, etc.) full-screen for viewing 3D.
- If light appears to flicker under fluorescents or dimmers when using the 3D Eyewear, change the setting of 3D Refresh Rate.

  Watching > 3D > 3D Settings
- Do not exert pressure on or scratch the lens of the 3D Eyewear.
- 3D content will not be correctly visible if the 3D Eyewear is worn upside down or back-to-front.
- When viewing 3D images, make sure your eyes are at an approximately horizontal level and keep a position where you do not see double images.
- Do not wear the 3D Eyewear when watching something other than 3D images. Liquid crystal displays (such as computer screens, digital clocks or calculators, etc.) may be difficult to see while wearing the 3D Eyewear.
- Do not use the 3D Eyewear as sunglasses.
- 3D effects may be perceived differently depending on the person.

3D Eyewear - Functions

■ Part names and functions

1 Power button / Mode change / Indicator lamp

- Power button
  - Press and hold for approx. 1 second to turn the 3D Eyewear on. (The indicator lamp lights for 2 seconds.)
  - Press and hold for 3 seconds or more to turn the 3D Eyewear off. (The indicator lamp lights 3 times.)
- Mode change
  - Press and hold for approx. 1 second to change the mode between 3D and 2D (view a 3D image in 2D).
  - When power is off, press and hold for approx. 5 seconds to change to registration mode.

    Watching > 3D > 3D Eyewear - Registration

- Indicator lamp
  - Lights or flashes during use to show the status (see below).

2 Protection film

- Peel off the protection film on both side of the lens.

3 Insulating sheet

- When using for the first time, remove the insulating sheet. Pull the insulating sheet.

4 Battery cover

- To replace the battery

Watching > 3D > 3D Eyewear - Replacing battery

■ Indicator lamp status

- Lights red for 2 seconds when turned on:

  Sufficient battery level

- Flashes 5 times when turned on:

  Low battery level

- Flashes red:

  Under registering

- Flashes red once every 1 second:

  Under reconnecting to the TV

- Flashes red 3 times:

  Power off (Press and hold for more than 3 seconds when in use, or automatically power off when registering / reconnecting fails, or connection is lost.)

- Flashes red once every 2 seconds when in use:

  3D mode is selected.

- Flashes red twice every 4 seconds when in use:

  2D mode is selected.

■ Storing and cleaning the 3D Eyewear

- Store the 3D Eyewear in a cool, dry place.
- Clean using a soft, dry cloth.
  - Wiping the 3D Eyewear with a cloth that is covered in dust or dirt may scratch the eyewear. Shake off any dust from the cloth before use.
  - The lens of the 3D Eyewear is easily broken. Be careful when cleaning the lens.
- Do not use benzene, thinner or wax on the 3D Eyewear, otherwise this may cause peeling of the paint.
- Do not dunk the 3D Eyewear in liquid such as water.

3D Eyewear - Registration

■ First registration

Perform the first registration when the 3D Eyewear is used for the first time.

1. Turn the TV on.
2. Press Power button for about 1 second to turn the 3D Eyewear on.
   - The lamp lights for about 2 seconds and then flashes.
   - The 3D Eyewear will be turned on and the registration will start.
   - Place the 3D Eyewear within 50 cm from the TV while registration is in progress.
3. After the registration is successfully completed, the 3D Eyewear will reconnect with TV automatically when the 3D Eyewear is turned on near the TV in 3D mode.

■ Registration again

When connection with the registered TV fails, or when using with another TV, re-register the 3D Eyewear.

1. Turn the TV on.
2. Within 50 cm from the TV, press Power button until lamp lights, then release it to start registration.
3. After the registration is successfully completed, the 3D Eyewear will reconnect with TV automatically when the 3D Eyewear is turned on near the TV in 3D mode.

= Note =

- If the registration failed, the 3D Eyewear will be turned off. In this case, turn the TV off and perform from step 1.

3D Eyewear - Replacing battery

When the battery is running low, the indicator lamp flashes 5 times on turning the 3D Eyewear on. In this case, early battery replacement is recommended.

- Dispose of the old batteries as non-burnable rubbish, or in line with the waste disposal regulations in your local area.

1. Remove the battery cover using pen tip or screwdriver (minus -), etc.

2. Replace the battery (coin-shaped lithium battery CR2025).

- If difficulty, remove it with the tip of the driver.
- Note the correct polarity (+ or -).

3. Attach the battery cover.

Viewing 3D

You can enjoy viewing 3D images with contents or programmes corresponding to the 3D effect by wearing the 3D Eyewear.

- This TV supports Frame Sequential, Side by Side and Top and Bottom 3D formats.
  - Frame Sequential is the 3D format that the images for the left and right eyes are recorded with the high definition quality and alternately played back.
- 3D content of 4K format is not supported.
- The 3D Eyewear must be worn to view 3D images. Perform the First Registration when the 3D Eyewear is used for the first time.

→ Watching > 3D > 3D Eyewear - Registration

1. Turn the 3D Eyewear on and put it on.
    - Connection status and battery status are displayed on the bottom right of the screen.
2. View the 3D images.
    - Safety precautions will be displayed when you first watch the 3D image. Select Yes or No to continue to view 3D images.

      If you select Yes, this message will be displayed again in the same condition after Mains Power On / Off switch is next turned on. Select No if you do not want to display this message again.
    - Turn off the 3D Eyewear after using it.

■ Playing back 3D-compatible Blu-ray disc (Frame Sequential)

- Connect the 3D-compatible player via a fully wired HDMI compliant cable. (If you use the non 3D-compatible player, the images will be displayed in 2D mode.)
- If the input mode is not switched automatically, select the input mode connected to the player.

→ Watching > External equipment > Watching external input

■ 3D-supported broadcast

- Please consult the suppliers of contents or programmes for availability of this service.

■ 3D photos and 3D videos taken by 3D-compatible Panasonic products

- Available in Media Player and Network services

→ Media Player

→ Network

■ 2D images converted to 3D

- Set to 2D→3D mode in 3D Mode Selection.

→ Watching > 3D > 3D Mode Selection

- Contents of 4K format cannot be changed to 3D mode.

3D Mode Selection

You can easily change the viewing mode between 2D and 3D with 3D.

1. Display 3D Mode Selection with 3D.
2. Select the mode with △ / ▽ and press OK to set.

- Items of 3D Mode Selection vary depending on the condition.

3D / 2D:

Displays the appropriate image as you desire without selecting 3D format.

- This mode may not work properly depending on the source image format. In this case, select the appropriate 3D format manually.

■ To change 3D format manually

When the image is not changed properly using 3D / 2D mode, use this manual setting.

1. Display 3D Mode Selection (Manual) with (red) during above operation.
2. Select the mode with △ / ▽ and press OK to set.

Original:

Displays the source image as it is.

- Use to identify the format type of the source image.

→ Watching > 3D > Source image format

Side by Side - 3D / Side by Side - 2D / Top and Bottom - 3D / Top and Bottom - 2D:

Displays the mode you select.

- Not valid in Analogue TV and AV mode

2D→3D:

Converts 2D images into 3D.

- Please note the 3D images appear slightly different from the originals.
- Using this function for profit-making purposes, or publically showing images converted from 2D to 3D in places such as shops or hotels, etc. may infringe on the rights of the copyright holder protected under copyright law.

3D Settings

1. Display the menu with MENU.
2. Select Picture > 3D Settings with △ / ▽ and press OK to access.

3. Select one of the following items with △ / ▽ and press OK to access.

   3D Detection / 3D Signal Message / 3D Refresh Rate / 2D→3D Depth / 3D Adjustment / L/R Picture Swap / Edge Smoother / Safety Precautions

4. Set with △ / ▽ and press OK to store.

- To exit the menu screen

  EXIT

3D Detection

(On (Advance) / On / Off)

Selects whether to switch to the 3D mode automatically or not.

On (Advance):

Detects all the 3D format signals and displays the 3D image automatically.

On:

Detects the particular 3D format signals (Frame Sequential, etc.) and displays the 3D image automatically.

- To view 3D images without any notifications and operations, set to On (Advance).

3D Signal Message

(On / Off)

Selects whether to give a notification message when a signal of 3D format is found or not.

- Not valid when 3D Detection is set to On (Advance)
- For Digital TV, Component, HDMI and DisplayPort input

3D Refresh Rate

(Auto / 100Hz / 120Hz)

Reduces juddering and flicker noises of the 3D images when using the 3D Eyewear.

100Hz:

If light appears to flicker under fluorescents (or dimmers) of 50 Hz.

120Hz:

If light appears to flicker under fluorescents (or dimmers) of 60 Hz.

2D→3D Depth

(Max / Mid / Min)

Selects a level of 3D-image depth for viewing converted 2D images.

3D Adjustment

(On / Off)

Adjustment of the 3D effect (except in 2D→3D mode)

Set to On to enable Effect setting.

- When setting to On, a safety precaution message will appear. Read it carefully and press RETURN to go to Effect setting.
- When adjusting, take into account that the vision of 3D images varies among different individuals.

  Effect:

  Adjusts the 3D depth according to the contents or to your preference. (This setting will not be memorised when changing the input mode or channel.)

L/R Picture Swap

(L/R (Normal) / R/L (Reversed))

Swaps pictures for left eye and right eye (except in 2D→3D mode).

Select R/L (Reversed) if you feel that the sense of depth is unusual.

- This setting will not be memorised when changing the input mode or channel.

Edge Smoother

(On / Off)

Set to On if you feel the contoured parts of an image are not smooth enough (except in 2D→3D mode).

Safety Precautions

Displays the precautions for viewing 3D images.

= Note =

- Display the image (TV, external input, etc.) full-screen to use this function completely.

Source image format

If the picture appears to be abnormal, refer to the table of images that can be seen for each 3D Mode Selection (Manual) and the source image format, and select the correct 3D mode.

- 3D images are displayed correctly with appropriate 3D format as following yellow boxes.

1 Source image format

2 Side by Side

3 Top and Bottom

4 Normal format (2D)

5 3D Mode Selection

6 Original

7 Side by Side - 3D

8 Top and Bottom - 3D

9 2D→3D

*: When selecting Side by Side - 2D or Top and Bottom - 2D, the images will be displayed without 3D effect.

- Depending on the player or broadcasts, the image may be different from the above illustrations.

Tuning and editing channels

Setting menu

You can retune channels, create your favourite channel lists, skip unwanted channels, etc.

1. Select Digital TV or Analogue TV with TV.
2. Display the menu with MENU.
3. Select Setup > Tuning Menu with △ / ▽ and press OK to access.

   Digital TV Tuning Menu / Analogue TV Tuning Menu

   - The menu name varies depending on the TV mode.
4. Select one of the functions with △ / ▽ and press OK to access.

   Favourites Edit / Channel List / Auto Tuning / Manual Tuning / Update Channel List / New Channel Message / Signal Condition / Add TV Signal

Favourites Edit

■ List favourite Digital TV channels

Create your favourite channel lists from various broadcasters (up to 4: Favourites 1 to 4).

The favourites lists are available from Favourites in the information banner and the TV Guide screen.

→ Watching > Basic > Information banner

→ Watching > TV Guide > Using TV Guide

1. Select Favourites Edit with △ / ▽ and press OK to access.
2. Select a channel to list from all Digital TV channels with △ / ▽.
   - appears when the channel is encrypted.
   - To display other favourites

     (green)
3. Press OK to add it to favourites list.
   - To add all channels to the list

     (yellow)
4. Press RETURN and OK to store.

■ Edit favourites list

You can edit the favourites list while the cursor is on the channel in the favourites list.

- To move the channel
  1) Select the channel with △ / ▽.
  2) Press (green).
  3) Select the new position with △ / ▽ or Numeric buttons.

  4) Press (green) to store.
- To delete the channel
  1) Select the channel with △ / ▽.
  2) Press OK to delete.
     – Press (yellow) to delete all channels.
- To name the favourites
  1) Press (red).
  2) Enter characters (maximum 10 characters) with △ / ▽ / ◁ / ▷ or Numeric buttons, and press OK to set.

  3) Press RETURN to store.

= Note =

- Channel numbers are defined by the broadcaster and cannot be changed.
- Hidden channels can be selected but not viewed.

Channel List

■ Skip unwanted Digital TV / Analogue TV channels

You can hide (skip) unwanted channels. The hidden channels cannot be displayed except in this function.

1. Select Channel List with △ / ▽ and press OK to access.
2. Select a channel with △ / ▽.

3. Press OK to set Reveal / Hide (skip).

: Reveal

: Hide (skip)

- To reveal all channels

(yellow)

■ Edit Digital TV / Analogue TV Channels

- To swap / move the channel position (if available)

1) Press (green) to edit.

2) Set the new position with Numeric buttons or △ / ▽, and press (green) to store.

- To retune each channel (Manual Tuning)

(red)

Watching > Tuning and editing channels > Manual Tuning

- To rename the channel name (Analogue TV)

1) Press (blue) to edit.

2) Enter characters (maximum 5 characters) with △ / ▽ / ◁ / ▷ or Numeric buttons, and press OK to set.

3) Press RETURN to store.

= Note =

- If a VCR is connected only with the RF cable in Analogue TV, edit VCR.

Auto Tuning

Automatically retunes the channels received in the area.

- All the previous tuning settings are erased.
- Search begins in the order from the lower channels to the higher channels.
- If tuning has not been done completely, set Manual Tuning.

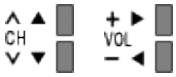
Watching > Tuning and editing channels > Manual Tuning

1. Select Auto Tuning with △ / ▽ and press OK to access.
2. The confirmation screen is displayed and press OK to start Auto Tuning. (Settings are made automatically.)
   - When the operation is completed, the channel at the lowest position will be displayed.

- This setting is applicable only for the selected TV mode.

■ Auto Tuning using the buttons on the TV

1. Press and hold INPUT/OK/HOLD for MENU button for 3 seconds to display the menu.
2. Set Auto Tuning with following control panel buttons.
   - Move the cursor / select from a range of options / select the menu item (up and down only)



   - Access the menu / store settings after adjustments have been made or options have been set with INPUT/OK/HOLD for MENU button

Manual Tuning

■ Digital TV

Normally use Auto Tuning or Update Channel List to retune Digital TV channels.

If tuning has not been done completely or for adjusting the direction of the aerial, use this function.

- All Digital TV channels found will be added to Channel List.

1. Select frequency with △ / ▽ and select offset with ◁ / ▷.
2. Press OK to search.

■ Analogue TV

Set Analogue TV channel manually after Auto Tuning.

- Set Sound System and Colour System, and then perform this function. Normally set Colour System to Auto.

1. Select the channel position with Numeric buttons.

2. Select the channel with Channel Up / Down.

3. Search with ◁ / ▷.
4. Select Store with △ / ▽ and press OK to set.

- Use Fine Tuning to make small adjustments to the tuning of an individual programme (affected by weather conditions, etc.).
- If a VCR is connected only with the RF cable, select channel position 0.

Update Channel List

By updating the Digital TV channel list, you can add new channels, delete removed channels or change channel names and positions automatically.

- The channel list is updated while keeping your settings in Favourites Edit, Channel List, Child Lock, etc.
- Depending on the signal condition, the update may not work properly.

New Channel Message

Selects whether to give a notification message when a new Digital TV channel is found or not.

- When a notification message appears, you can perform Update Channel List pressing OK.

Signal Condition

Selects a channel and checks the signal condition with indicators.

- A good Signal Strength is not an indication of suitable signal for Digital TV reception.
- To change the channel

- For Digital TV

Add TV Signal

Adds the TV mode.

- This function is available if you skip any modes to tune in Auto Tuning for first using the TV.

Recording

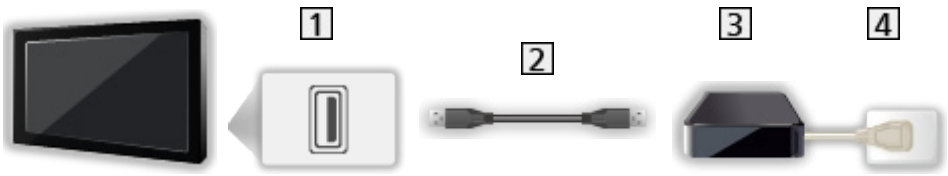
USB HDD setup

Preparations

You can record the digital TV programmes to the connected USB HDD and enjoy playing back in various ways.

- Prepare the USB HDD for the exclusive use of recording with this TV.
- Connect the USB HDD to the USB 3 port with the USB cable.
- Be sure to connect the USB HDD to the socket outlet.
- To remove the USB HDD safely from the TV, perform Safely remove USB in USB Device Setup.

  Recording > USB HDD setup > Setting for USB HDD
- Check the terminal type and cable plugs are correct when connecting.



1 USB port

2 USB cable

3 USB HDD

4 Socket outlet

= Caution =

- All data in the USB HDD will be erased in the following cases:
  - When formatting the USB HDD with this TV

    Recording > USB HDD setup > Setting for USB HDD
  - When formatting the USB HDD to use on PC, etc.
- When the TV is repaired due to a malfunction, you may have to format the USB HDD again with this TV to use it. (All data will be erased after formatting.)
- To use the USB HDD with your PC after recording with this TV, format it again on your PC. (Special operations or tools may be necessary to format on your PC. For details, read the manual of the USB HDD.)

- The data recorded on the USB HDD with this TV can only be played back on this TV. You cannot play back its contents with another TV (including the TV of the same model number) or any equipment.
- Do not turn the TV off, pull out the mains plug or remove the USB HDD during operation (formatting, recording, etc.). Doing so may cause malfunction of the device or damage the recorded data. (An electric outage may also be a cause of malfunction.)

= Note =

- Analogue TV programme cannot be recorded on the USB HDD.
- The data broadcasting (MHEG, etc.), radio broadcasting will not be recorded, and also the recording function will not work during the period without any signal.
- Not all the programmes can be recorded depending on the broadcaster and service provider.
- You cannot copy the recorded TV programmes of the USB HDD.
- For more information of the USB HDD

→ Recording > Technical information > USB HDD

Setting for USB HDD

Format and set up the USB HDD with this TV in order to use it for recording.

All the USB devices recognised as a mass storage device will be listed.

- Please note that USB HDD will be formatted and all data in it will be erased after this setup.
- Before setting, connect the USB HDD and be sure to turn on the USB HDD.

→ Recording > USB HDD setup > Preparations

1. Display the menu with MENU.
2. Select Setup > USB Device Setup with △ / ▽ and press OK to access.
3. Select the USB HDD for recording with △ / ▽ and press OK to start setup.
   - Some USB HDD may not be displayed.
   - To display information of the highlighted device

     INFO
4. When the caution and confirmation screen for using USB HDD is displayed, select Yes with ◁ / ▷ and press OK to proceed.

5. When the confirmation screen of USB HDD name is displayed, select Yes with ◁ / ▷ and press OK to set.
   - The name for the USB HDD is created automatically. If you want to edit the name, select Yes.
     1) Enter characters with △ / ▽ / ◁ / ▷ or Numeric buttons, and press OK to set.

     2) Press RETURN to store.
6. When the confirmation screen to enable USB HDD for recording is displayed, select Yes with ◁ / ▷ and press OK to set.
   - If another formatted USB HDD for recording already exists, this confirmation screen will be displayed to switch to enable this USB HDD for recording.

- Mode of the USB HDD

  : The USB HDD is available for recording / playing back.

  Only one USB HDD on the list is available for recording.

  : The USB HDD is available for playing back.

- To change the mode

  OK

- To edit USB HDD name

  (green)

- To format

  (red)

- To remove the USB HDD safely from the TV

  (yellow)

= Note =

- You can only select one USB HDD for recording at a time.
- You cannot change the settings for the USB HDD while recording is in progress.

Recording current programme

One Touch Recording

Records the current programme to the USB HDD immediately.

- Confirm the remote control code is “73”.

  Watching > External equipment > Operating with TV’s remote control

1. Display the menu with MENU.
2. Select Setup > Recording Setup > One Touch Recording with △ / ▽ and press OK to access.
3. Select the maximum recording time 30 / 60 / 90 / 120 / 180 (minutes) with △ / ▽ and press OK to set.

■ To start One Touch Recording

Press ● to start.

- Other channels cannot be selected while recording is in progress.

■ To stop recording in progress

Press ■ to stop.

■ To play back or delete the recorded contents

Recorded TV programmes can be played back in Media Player.

1. Display icons of the feature with APPS.
2. Select Recorded TV with △ / ▽ / ◁ / ▷ and press OK to access.

   Media Player > Recorded TV mode

- Even if One Touch Recording is in progress, you can play back all the contents. (Depending on the USB HDD, playback may not be possible or the recording may not work properly during playback.)

REW LIVE TV

Records the current programme to the USB HDD constantly within the maximum recordable time.

- Confirm the remote control code is “73”.

  Watching > External equipment > Operating with TV’s remote control

1. Display the menu with MENU.
2. Select Setup > Recording Setup > REW LIVE TV with △ / ▽ and press OK to access.
3. Select Auto with △ / ▽ to start REW LIVE TV.

- When you select Auto, recording will start automatically.
- This recording may not start if another recording is in progress, TV signal condition is bad or there are no images displayed.

■ To operate REW LIVE TV

- To pause

  ⏸

- To search backward (up to 90 minutes)

  ◀◀

- After pausing or searching backward, the following buttons are available for operation.

  ◁ : Search backward

  ▷ : Search forward

  ▽ : Return to the current programme

  OK : Playback / Pause

  ◀◀ ▶▶ : Search backward / Search forward

  ⏸ : Pause / Resume

  ▶ : Playback

  ■ : Return to the current programme

■ To stop REW LIVE TV

1. Display the menu with MENU.
2. Select Setup > Recording Setup > REW LIVE TV with △ / ▽ and press OK to access.
3. Select Off with △ / ▽ to stop REW LIVE TV.

- If you stop REW LIVE TV, the recorded content for REW LIVE TV will be deleted.
- REW LIVE TV will be stopped and the recorded content will be deleted automatically in the following conditions: (Even if REW LIVE TV stops for the following conditions, as long as the setting is Auto, a new recording will start automatically in a condition that makes the recording available.)
  - Other channels selected
  - Locked channel selected
  - Invalid channel selected
  - No TV signal
  - External input selected
  - When the full-screen application (TV Guide, Media Player, eHELP, etc.) is launched
  - When the TV enters Standby or is turned off
  - When another recording starts

Timer Programming

Setting Timer Programming

This function allows you to select programmes that you want to be reminded to watch or record to the USB HDD.

- Not valid in Analogue TV

1. Select Digital TV with TV.
2. Display the menu with MENU.
3. Select Timer > Timer Programming with △ / ▽ and press OK to access.

■ Set timer event details

1. Press OK to start making the settings.
2. Select USB HDD Rec. / Reminder with △ / ▽.

USB HDD Rec.:

Records the programme to the USB HDD.

When the start time comes, the channel will be switched automatically and the video and audio signals will be output. 2 minutes before the start time, a reminder message appears if you are watching TV.

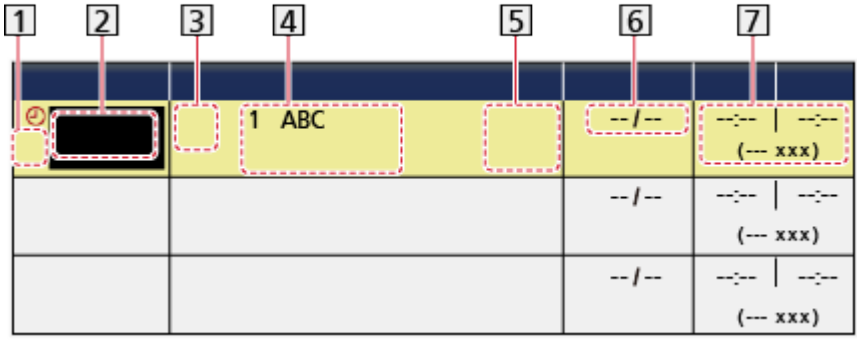
Reminder:

Reminds you to watch the programme.

When you are watching TV, a reminder message appears 2 minutes before the start time. Press OK to switch to the programmed channel.

3. Select the item (channel, date, start time, end time) with ◁ / ▷ and set 4 / 6 / 7 with △ / ▽.
   - 4 and 7 can also be entered with Numeric buttons.

(Example)



1 !: Overlapped timer events

2 Function

(USB HDD Rec. / Reminder)

3 : Digital TV

4 Channel position, channel name, etc.

5 STTL: Displays subtitles (if available)

– Press (yellow) to indicate subtitles and press again to remove them.

– For Reminder

6 Date (You can set one day ahead with △, select daily or weekly with ▽.)

– Daily Sun-Sat: Sunday to Saturday

– Daily Mon-Sat: Monday to Saturday

– Daily Mon-Fri: Monday to Friday

– Weekly Sat / Fri / Thu / Wed / Tue / Mon / Sun: Same time on the same day every week

7 Start time / End time / Duration (automatic display)

4. Store with OK.

Editing Timer Programming

1. Display the menu with MENU.
2. Select Timer > Timer Programming with △ / ▽ and press OK to access.
3. Select the event with △ / ▽.

- To change a timer event

  OK

  – Correct as necessary.

  Recording > Timer Programming > Setting Timer Programming

- To delete a timer event

  1) Press (red).

  2) Press OK to delete.

- To display subtitles (if available)

  (yellow)

  – Press again to remove subtitles.

  – For Reminder

- To cancel a timer event temporarily

  (blue)

  – Press again to stop cancelling.

■ To adjust the clock

If you cannot get the time information, set Clock Settings manually.

1. Display the menu with MENU.
2. Select Timer > Clock Settings > Mode with △ / ▽ and press OK to access.
3. Select Manual with △ / ▽ and press OK to set.
4. Set Date / Time with △ / ▽ / ◁ / ▷ or Numeric buttons.

- Clock Settings are reset when the TV is turned off with Mains Power On / Off switch.

  Watching > Basic > Adjusting time

■ To play back or delete the recorded contents

Recorded TV programmes can be played back in Media Player.

1. Display icons of the feature with APPS.
2. Select Recorded TV with △ / ▽ / ◁ / ▷ and press OK to access.

Media Player > Recorded TV mode

Note

- TV Guide may also be used to set timer event.

Watching > TV Guide > Timer Programming

- Timer Programming can store up to 15 events.
- Timer Programming only works reliably if correct time information is received via the signal from the broadcaster or service provider.
- For recording using Timer Programming, the TV must be either on or in Standby. For reminders to be displayed, the TV must be on.
- No other channels can be selected while the recording of Timer Programming is in progress.
- Recording an encrypted (copy-protected) programme may not be possible.
- 2 minutes before the start time, a reminder message appears if you are watching TV.
  - To remove the message and start the programming, press OK.
  - To cancel the programming, press EXIT.
- LED will turn to orange in Standby mode if Timer Programming is set.
- Reminder messages will remain displayed until one of the following occurs:
  - You press OK to view the programme or EXIT to cancel the reminder.
  - The timer event that the reminder is set for ends.
- "!" identifies that two or more timer events are overlapped. USB HDD Rec. is given priority over Reminder. As for the overlapped recording events, the first event starts and finishes as programmed. The next event can then start.
- The recording of Timer Programming will automatically change the channel to the programmed channel a few seconds before the start time.
- The recording of Timer Programming will be performed even if the TV is in REW LIVE TV recording. In this case, REW LIVE TV recording will be cancelled.

Recording > Recording current programme > REW LIVE TV

- For more information of the USB HDD

Recording > Technical information

Technical information

USB HDD

■ USB HDD

(for recording the digital TV programmes with this TV)

- The capacity of USB HDD that works with this TV is from 160 GB to 3 TB.
- Connect the USB HDD to the socket outlet to record and play back properly with this TV.
- Use the USB HDD formatted with this TV.

  → Recording > USB HDD setup > Setting for USB HDD
- Regarding performance, not all USB HDDs are guaranteed. Check the USB HDDs that have been tested for compatibility with this TV at the following website.

  http://panasonic.net/viera/support (English only)

= Note =

- Data modified with a PC may not be displayed.
- Do not remove the device while the TV is accessing data. Otherwise this can damage the device or TV.
- Do not touch the pins on the device.
- Do not subject the device to a high pressure or impact.
- Insert the device in the correct direction. Otherwise this can damage the device or TV.
- Electrical interference, static electricity, or erroneous operation may damage the data or device.

Media Player

Using Media Player

Information

Media Player allows you to enjoy photo, video or music recorded on the SD Card / USB Flash Memory / USB HDD / network device, and contents recorded with this TV to the formatted USB HDD.

(Example)

Photo mode:

Still pictures recorded with digital cameras will be displayed.

Video mode:

Moving pictures recorded with digital video cameras and digital video data will be played back.

Recorded TV mode:

(For exclusive USB HDD) TV programmes recorded on the USB HDD with this TV will be played back.

Music mode:

Digital music data will be played back.

- During the operation, audio signal is output from DIGITAL AUDIO OUT and HDMI2 / HDMI4 (ARC function) terminals. But no video signals are output. To use HDMI2 / HDMI4 with ARC function, connect an amplifier that has ARC function, set to use theatre speakers and match the output setting in ARC Output in the Sound menu.

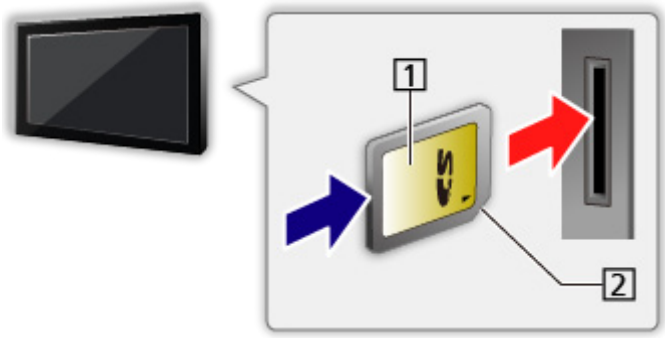
  → Functions > VIERA Link “HDAVI Control™”

- Date shows the date on which the recording was made by the recording equipment. For a file without a valid record date “* *” is shown.
- Pictures may not appear correctly on this TV depending on the recording equipment used.
- Displaying may take some time when there are many files and folders.
- Partially degraded files may be displayed with reduced resolution.
- Picture setting may not work depending on the conditions.

- Folder and file names may be different from those on the digital camera or digital video camera used.

■ To insert or remove the SD Card

Gently insert the SD Card with the label surface facing front. Push the centre of the card until a click is heard. (To remove, push it again.)

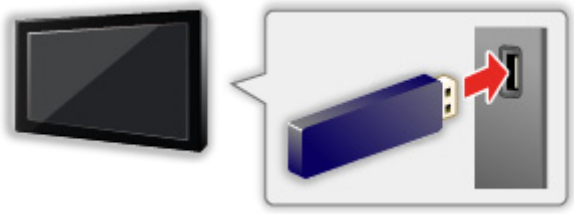


1 Label surface

2 Cutout

■ To insert or remove the USB Flash Memory

Ensure alignment is straight and complete when inserting or removing.



- To remove the USB Flash Memory safely from the TV, perform Safely remove USB in USB Device Setup.
  1) Display the menu with MENU.
  2) Select Setup > USB Device Setup with △ / ▽ and press OK to access.
  3) Select the device with △ / ▽ and press ■ (yellow) to set.
- Connect the USB Flash Memory to the USB 1, 2 or 3 port.

= Note =

- To connect the USB HDD

  → Recording > USB HDD setup
- Check the terminal type and devices are correct when connecting.
- For the information of the devices

  → Media Player > Technical information

- For supported file formats

  → Media Player > Technical information

Selecting device / mode

1. Insert the SD Card or USB Flash Memory to the TV.
   - When you insert the SD Card, Media Player will start automatically.

   → Media Player > Using Media Player > Information

   - To play back contents in the USB HDD, ensure the connection and settings are completed.

     → Recording > USB HDD setup

   - To play back contents in the network device, ensure the connection and settings are completed.

     → Media Player > Using Media Player > Network device
2. Display APPS List with APPS.
3. Select Media Player with △ / ▽ / ◁ / ▷ and press OK to access.
4. Select the device with ◁ / ▷ and press OK to access.
   - If only one device is connected, this step will be skipped.
   - The network device already connected to the TV is also displayed.

     : Enter User / Password to access.

     : User / Password are already entered.
5. Select Photo / Video / Music / Recorded TV with ◁ / ▷ and press OK to access.

   Photo

   → Media Player > Photo mode

   Video

   → Media Player > Video mode

   Music

   → Media Player > Music mode

   Recorded TV

   → Media Player > Recorded TV mode

6. The thumbnail view will be displayed.

   (Example)

- To display / hide information of the highlighted content

  INFO

= Note =

- You may also access each mode directly from APPS List.

  my Home Screen > APPS List > How to use

- Recorded TV is available for contents recorded on the USB HDD with this TV.
- Select the appropriate device and content for playing back each file.
- You can use the following buttons during playback. Confirm the remote control code is “73”.

  ◀◀ ⏮ ▶▶ ⏭ ▶ ■ ❚❚

  Watching > External equipment > Operating with TV’s remote control

■ To change the device

You can change the current device to another device directly in the same mode when two or more available devices are connected.

1. Display the device selection screen with (yellow) while the thumbnail is displayed.
2. Select the device with ◁ / ▷ and press OK to access.

- Not valid in Recorded TV mode
  - To change the device in Recorded TV mode

    Media Player > Recorded TV mode > Changing device

■ To change the mode

You can switch to another mode of Media Player from the thumbnail view.

1. Display the contents selection screen with (blue) while the thumbnail is displayed.
2. Select the contents with ◁ / ▷ and press OK to access.

- The mode can be switched in the current device.

Network device

You can enjoy photo, video or music stored in the network devices.

- To enable this function, connect this TV to your home network.

  → Network > Network connections

  → Network > Network settings

■ How to set User / Password

1. Display the menu with MENU.
2. Select Network > File Sharing Settings > Network Device List with △ / ▽ and press OK to access.
3. Select the network device with △ / ▽ and press OK to access.
4. Enter User / Password with △ / ▽ / ◁ / ▷ or Numeric buttons and press OK to set.

   - Press RETURN to store.
   - To register the new network device, set Server Name / Shared Folder. For details, read the manual of the equipment.
5. Select Register with △ / ▽ and press OK to set.
   - To delete the registered device, select Delete with △ / ▽ and press OK to set.

= Note =

- Regarding performance, not all servers are guaranteed. PCs with Windows 7 / Windows 8 / Windows 8.1 have been tested for compatibility with this TV (as of December, 2013). Additional information for the servers may be found on the following website.

  http://panasonic.net/viera/support (English only)

Sharing file

You can share the files between PC and devices connected to this TV.

- To enable this function, connect this TV to your home network.

  → Network > Network connections

  → Network > Network settings

1. Display the menu with MENU.
2. Select Network > File Sharing Settings > File Sharing Server with △ / ▽ and press OK to access.
3. Select On with △ / ▽ and press OK to set.
4. Operate your PC to share the files.

- For operations, refer to the support information on the following website.

  http://panasonic.net/viera/support (English only)

- This function is not available when the TV is turned off with Mains Power On / Off switch.

= Note =

- Regarding performance, not all PCs are guaranteed. PCs with Windows 7 / Windows 8 / Windows 8.1 have been tested for compatibility with this TV (as of December, 2013). Additional information for the PCs may be found on the following website.

  http://panasonic.net/viera/support (English only)

- Do not turn the TV off, pull out the mains plug or remove the device during operation (reading, copying, etc.). Doing so may cause malfunction of the device or damage the recorded data.
- All data in the USB HDD will be erased when you format the USB HDD with this TV for recording.
- Picture noise may occur on the screen when playback starts during operation (reading, copying, etc.).
- For the information of the devices

  → Media Player > Technical information

Photo mode

Selecting file

Select the file in the thumbnail view with △ / ▽ / ◁ / ▷ and press OK to start playback.

: Error display

- To change the size of photos in the thumbnail view
  1) Display the option menu with OPTION.
  2) Select Change Size with △ / ▽ and press OK to change.
- For supported file formats

  → Media Player > Technical information > Photo format

■ Thumbnail view

- To display / hide information of the highlighted content

  INFO
- To display Slideshow Settings

  (red)

  → Media Player > Photo mode > Using Slideshow
- To sort

  (green)
- To change the device

  (yellow)
- To change the contents

  (blue)

Viewing photo

■ Playback

- To operate Single view

  ◁ : To the previous photo

  ▷ : To the next photo

  ▽ : Stop (return to thumbnail)

  OK : Slideshow

- To display / hide the operation guide

  INFO

- To rotate 90°

  (blue)

- To return to thumbnail

  RETURN

Sorting photos

■ To sort by folder, recorded date or recorded month

1. Display the view selection in the thumbnail view with (green).
2. Select Folder view / Sort by Date / Sort by Month with △ / ▽ and press OK to set.

   Folder view:

   Displays the thumbnail grouped by folder.

   - Files which are in the root folder will be collected to the folder named “/”.

   Sort by Date / Sort by Month:

   Displays the thumbnail grouped by the same date or month.

   - The group of the photos without recorded dates is shown as Unknown.

- To return to the thumbnail of all photos

  1) Display the view selection in the thumbnail view with (green).
  2) Select All photos with △ / ▽ and press OK to set.

Multi Shot 3D

This TV can create a 3D photo using a pair of photos and save it.

- You can only save the image into the SD card.
- This function is available with photos recorded on digital cameras.
- Depending on the photos you select, they may not be suitable for creating 3D photos, or creating 3D photos may not be possible. In this case, it is recommended to take a photo (for L) and then move your camera to the right approx. 5 cm and take another photo (for R).
- To view the created 3D photo with 3D effect, you need the 3D Eyewear.

1. Display the option menu in the thumbnail view with OPTION.
2. Select Multi Shot 3D with △ / ▽ and press OK to access.
3. Select two photos for L (left) and R (right) with △ / ▽ / ◁ / ▷ and (red).
   - You can only select photos of the same recorded date and the same pixels.
   - You may not be able to view the created 3D photo properly if you transpose the left and right photos.
4. Create the 3D photo with OK.
   - If your selected photos are not suitable for the 3D photo, the error message will be displayed and you will return to the photo selection screen (step 3).
   - To save the 3D photo in the SD Card, press OK and follow the on-screen instructions.
   - After the photo is saved, the photo selection screen will be displayed (step 3). Select photos again to create another 3D photo or exit from Multi Shot 3D.

■ To enjoy the saved 3D photos

Saved 3D photos are displayed in the thumbnail view. Wear the 3D Eyewear and enjoy the 3D photos.

Using Slideshow

Slideshow ends when all photos within the current thumbnail are viewed.

1. Select the file from the thumbnail of photos for the first view with △ / ▽ / ◁ / ▷.
2. Start Slideshow with (red) and OK.
   - To display / hide the operation guide

     INFO
   - To pause (return to Single view)

     OK
   - To return to thumbnail

     RETURN
   - You can change the back ground music by setting Back Ground Music in Slideshow Settings (see below).

■ Slideshow Settings

Set up the settings for Photo mode.

1. Display the option menu with OPTION.
2. Select Slideshow Settings with OK.
3. Select one of the following items with △ / ▽ and press OK to access.

   Colour Effect / Auto Makeup / Screen Mode / Interval / Repeat / Back Ground Music
4. Set with △ / ▽ and press OK to store.

Colour Effect

(Off / Sepia / Gray scale)

Selects the colour effect of photos.

Auto Makeup

(On / Off)

Automatically detects the face in the photo and improves luminance and contrast.

Screen Mode

(Normal / Zoom)

Selects enlarged or normal viewing.

- Depending on the photo size, the photo may not be fully enlarged to fill the screen (e.g. portrait style picture).

Interval

(Long / Normal / Short)

Selects slideshow interval.

Repeat

(On / Off)

Slideshow repeat

Back Ground Music

(Off / Type1 / Type2 / Type3 / Type4 / Type5 / User / Auto)

Selects the background music during Photo mode.

Type1 - 5:

Music files installed on this TV at the factory settings will be played back.

Auto:

Music files stored in the current device will be played back.

- If there is no available music data, no sound will be played back.

User:

Music files in the device registered by yourself will be played back.

- If no music files have been registered or the device which had registered music files is removed, no sound will be played back.

● To register music

1) Select the music file with △ / ▽ and press OK to access.
   - Depending on the condition of the device, select folders until you reach the desired music file.
2) Select File / Folder with △ / ▽ and press OK to set.

File:

The selected music file will be registered.

Folder:

All the music files in the folder which contains the selected music file will be registered.

= Note =

- Picture quality may be degraded depending on the slideshow settings.
- Picture setting may not work depending on the slideshow settings.

Video mode

Selecting file

1. Select the title in the thumbnail view with △ / ▽ / ◁ / ▷.

   : Error display

   : The file does not support thumbnail view.

   - The preview will start when the title / scene is highlighted in the thumbnail view if it supports a preview. To turn off the preview, set Video Preview to Off.

     → Media Player > Video mode > Video Setup

2. Start playback with (red).

   - If you have stopped the last playback halfway, the confirmation screen is displayed to select whether to start from where you stopped last time or from the beginning.

- For supported file formats

  → Media Player > Technical information > Video format

■ Thumbnail view

- To display / hide information of the highlighted content

  INFO

- To start playback

  (red)

- To change the device

  (yellow)

- To change the contents

  (blue)

■ Playback from the selected scene in the title

Playback of the selected scene will start and continue until the end of the title.

1. Select the title with △ / ▽ / ◁ / ▷ and press OK to access.
2. Select the scene with △ / ▽ / ◁ / ▷.
3. Start playback with (red).

- The structure of titles and scenes may vary depending on the digital video camera used.
- Playback may not continue depending on the condition.
- To repeat playback

  → Media Player > Video mode > Video Setup

■ Playback

- To operate playback

  ◁ : Rewind

  ▷ : Fast forward

  ▽ : Stop

  OK : Pause (displays the time seek bar) / Playback
- To jump to the specified time point

  1) Display the time seek bar with OK.

  2) While the time seek bar is displayed

  Press ◁ / ▷ :

  Search approx. 10 seconds

  Press and hold ◁ / ▷ :

  Search rapidly

  3) Jump to the specified time point with OK.
- To display / hide the operation guide and information banner

  INFO
- To the previous title / scene

  (red)
- To the next title / scene

  (green)

- To change aspect

  1) Display Aspect Selection with ASPECT.

  2) Select the mode with △ / ▽ and press OK to set.

     Aspect1:

     Displays the content enlarged without distortion.

     Aspect2:

     Displays the content full-screen.

     Original:

     Displays the content original size.

  – You can also change the mode pressing ASPECT. (Press repeatedly until you reach the desired mode.)

  – Aspect cannot be changed depending on the content.

- To return to thumbnail

  RETURN

Video Setup

Set up the settings for Video mode.

1. Display the option menu with OPTION.
2. Select Video Setup with OK.
3. Select one of the following items with △ / ▽ and press OK to access.

   Video Preview / Multi Audio / Dual Mono Audio / Subtitle / Subtitle Text / Repeat

   - Menu items and selectable options vary depending on the content.
4. Set with △ / ▽ and press OK to store.

Video Preview

(On / Off)

Sets to start the preview of the title or scene in the thumbnail view.

- Images may not be displayed for an instant in the thumbnail view. Set the preview Off to solve this.
- This function is available in the thumbnail view.

Multi Audio, Dual Mono Audio

Selects for selectable sound tracks (if available).

- It may take several seconds to change the sound.

- This function is available during playback.

Subtitle

Display / hide subtitles (if available).

- This function is available during playback.

Subtitle Text

Selects the font type to display subtitles correctly (if available).

- This function is available during playback.

Repeat

(On / Off)

Playback repeat within the title or selected file (depending on the content)

Audio output settings

You can enjoy the multi-channel sound via an amplifier connected to DIGITAL AUDIO OUT or HDMI2 / HDMI4 (ARC function) terminal.

- To confirm or change the current sound status

  Media Player > Video mode > Video Setup

1. Display the menu with MENU.
2. Select Sound > SPDIF Selection with △ / ▽ and press OK to access.
3. Select Auto / PCM with △ / ▽ and press OK to set.

SPDIF Selection

(Auto / PCM)

Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT and HDMI2 / HDMI4 (ARC function) terminals.

- SPDIF is a standard audio transfer file format.

  Auto:

  Dolby Digital Plus, Dolby Digital and HE-AAC multi-channel are output as Dolby Digital Bitstream. MPEG is output as PCM. DTS is output as DTS.

  PCM:

  Digital output signal is fixed to PCM.

- ARC (Audio Return Channel) is a function of digital audio output using HDMI cable.

Recorded TV mode

Selecting content

- For exclusive USB HDD
- To play back contents in the USB HDD, ensure the connection and settings are completed.

  → Recording > USB HDD setup

1. Contents list of the selected device is displayed in Recorded TV mode.
   - Remaining capacity of the selected device is displayed on the top right. (This value may not be accurate depending on the condition.)
   - Contents list is displayed as All or Not Viewed.

     All:

     All the recorded TV programmes are listed.

     Not Viewed:

     Contents not played back yet are listed.
   - Icons are displayed.
     - : Content not played back yet (Once you play back the content, this icon will disappear.)
     - : Protected content cannot be deleted.
     - : Content under recording (You can play back this content even if under recording.)
     - : Two or more contents are grouped.
2. Select the content with △ / ▽ and press OK to start playback.
   - If you have stopped the last playback halfway, the confirmation screen is displayed to select whether to start from where you stopped last time or from the beginning.

- For supported file formats

  → Media Player > Technical information > Video format

■ Playback

- To operate playback

  △ : Manual skip

  – Press to skip forward approx. 30 seconds.

  – Press and hold to skip backward approx. 15 seconds.

  ◁ : Rewind

  ▷ : Fast forward

  ▽ : Stop

  OK : Pause (displays the time seek bar) / Playback

- To jump to the specified time point

  1) Display the time seek bar with OK.

  2) While the time seek bar is displayed

     Press ◁ / ▷ :

     Search approx. 10 seconds

     Press and hold ◁ / ▷ :

     Search rapidly

  3) Jump to the specified time point with OK.

- To display / hide the operation guide and information banner

  INFO

- To repeat between the starting point “A” and finishing point “B”

  (blue)

  (Set “A” and “B” in order.)

  – The points will be reset by pressing again or by other operations.

- To the previous / next chapter

  (red) / (green)

  – A recorded content is automatically divided into chapters (approx. 5 minutes for each).

- To change aspect

  ASPECT

  → Watching > For best picture > Aspect

- To display the subtitle (if available)

  STTL/AD

- To confirm or change the current status (if available)

  Watching > Basic > Option Menu

- To return to list

  RETURN

Grouping contents

1. Select the content to edit with △ / ▽ and press (blue) to tick in the contents list.
2. Display the option menu with OPTION.
3. Select Create Group / Release Group / Exclude from Group / Change Protect Status with △ / ▽ and press OK to set.

   Create Group:

   Two or more contents can be grouped. Select and tick all the desired contents, and then select Create Group.

   Release Group:

   Select the created group to release, and then select Release Group. (To release several groups at once, tick all the desired groups.)

   Exclude from Group:

   Select the group and press OK to display the grouped contents. To exclude one specific content from the group, tick it and then select Exclude from Group. (To exclude several contents at once, tick all the desired contents.)

   Change Protect Status:

   Select the content to protect from deletion, and then select Change Protect Status. Perform the same way to cancel the protection. (To change the status of several contents at once, tick all the desired contents.)

Deleting content

1. Select the content to edit with △ / ▽ and press (blue) to tick in the contents list.
2. Delete the content with (red).
3. When the confirmation screen is displayed, select Yes with ◁ / ▷ and press OK to set.

Changing device

You can change the current device to another device directly in the same mode when two or more available devices are connected.

1. Display the option menu with OPTION.
2. Select Drive Select with △ / ▽ and press OK to access.
3. Select the device with ◁ / ▷ and press OK to access.
   - If you select the device to play back photos, videos or music, change to the appropriate content.
     1) Display the option menu with OPTION.
     2) Select Contents Select with △ / ▽ and press OK to access.

Chapter List

You can start playback from the chapter list you select.

1. Display the chapter list with (yellow).
2. Select the chapter with ◁ / ▷ and press OK to start playback.

= Note =

- The chapter list is not displayed while the selected content is being recorded.
- Depending on the recorded programmes, some playback operations may not work properly.

Audio output settings

You can enjoy the multi-channel sound via an amplifier connected to DIGITAL AUDIO OUT or HDMI2 / HDMI4 (ARC function) terminal.

- To confirm or change the current sound status

  → Media Player > Video mode > Video Setup

1. Display the menu with MENU.
2. Select Sound > SPDIF Selection with △ / ▽ and press OK to access.
3. Select Auto / PCM with △ / ▽ and press OK to set.

SPDIF Selection

(Auto / PCM)

Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT and HDMI2 / HDMI4 (ARC function) terminals.

- SPDIF is a standard audio transfer file format.

  Auto:

  Dolby Digital Plus, Dolby Digital and HE-AAC multi-channel are output as Dolby Digital Bitstream. MPEG is output as PCM. DTS is output as DTS.

  PCM:

  Digital output signal is fixed to PCM.

- ARC (Audio Return Channel) is a function of digital audio output using HDMI cable.

Music mode

Selecting file

1. Select the folder in the thumbnail view with △ / ▽ / ◁ / ▷.
2. Start playback with (red).

- For supported file formats

  → Media Player > Technical information > Music format

■ Thumbnail view

- To display / hide information of the highlighted content

  INFO

- To start playback

  (red)

- To change the device

  (yellow)

- To change the contents

  (blue)

Playing music

■ Playback of the selected file in the folder

1. Select the folder with △ / ▽ / ◁ / ▷ and press OK to access.
2. Select the file with △ / ▽ / ◁ / ▷.
3. Start playback with (red).

■ Playback

- To operate playback

  ◁ : Rewind

  ▷ : Fast forward

  ▽ : Stop

  OK : Pause (displays the time seek bar) / Playback

- To jump to the specified time point
  1) Display the time seek bar with OK.
  2) While the time seek bar is displayed
     Press ◁ / ▷ :
       Search approx. 10 seconds
     Press and hold ◁ / ▷ :
       Search rapidly
  3) Jump to the specified time point with OK.
- To display / hide the operation guide
  INFO
- To the previous track
  (red)
- To the next track
  (green)
- To return to thumbnail
  RETURN

Music Setup

Set up the setting for Music mode.

- This function is available in the thumbnail view.

1. Display the option menu with OPTION.
2. Select Music Setup > Repeat with OK.
3. Select Off / Folder / One with △ / ▽ and press OK to set.
   Folder:
     Playback repeat within the selected folder
   One:
     Playback repeat of the selected one file

USB Sharing

USB Sharing

You can copy the contents from one device to another using the USB ports and SD Card slot.

- To enable this function, connect the source drive and destination drive to the TV.

  Media Player > Using Media Player > Information

Source drive:

USB device / SD Card which contains the data to be copied.

Destination drive:

USB device / SD Card which you copy to.

1. Display APPS List with APPS.
2. Select USB Sharing with △ / ▽ / ◁ / ▷ and press OK to access.
3. Select the drive from Source drive with △ / ▽ and press OK to access.
4. Select the folder or file to copy with △ / ▽ and press (red) to set.
   - To select all folders or files at once

     (green)
5. Press ▷ to go to Destination drive.
6. Select the drive with △ / ▽ and press OK to access.
   - You cannot select the source drive as the destination drive.
7. Select Copy Here with △ / ▽ and press OK to access.
8. When the confirmation screen is displayed, select Yes with ◁ / ▷ and press OK to start copying.

- Copy progress is shown on the top right of the TV screen. When copying is finished, Complete!! is displayed.
- To cancel the copying, select USB Sharing from APPS List again.
- To watch TV while data copying is in progress, press TV.

■ Create a folder or delete a folder

You can create a new folder or delete an old folder while the cursor is in Destination drive.

- To create a new folder
  1) Display the option menu with OPTION.
  2) Select Create Folder with △ / ▽ and press OK to access.
  3) Enter characters (maximum 16 characters) with △ / ▽ / ◁ / ▷ or Numeric buttons, and press OK to set.

  4) Press RETURN to store.
- To delete an old folder
  1) Select the folder with △ / ▽ .
  2) Display the option menu with OPTION.
  3) Select Delete with △ / ▽ and press OK to access.
  4) When the confirmation screen is displayed, select Yes with ◁ / ▷ and press OK to delete.

= Note =

- Not valid for the contents in the network device
- Some files may not be copied properly.
- Please note there may be a risk of file corruption due to power failure or sudden shut down during USB Sharing process.
- In consideration of possible loss of the data included in your USB devices or SD card for any reasons, Panasonic recommends to store or back up the data included in the USB devices or SD card to the other places (storage medium) before inserting the same in the USB port or SD card slot, and please do not turn the TV off during data communication / transfer.

Technical information

Device handling caution

- Data modified with a PC may not be displayed.
- Do not remove the device while the TV is accessing data. Otherwise this can damage the device or TV.
- Do not touch the pins on the device.
- Do not subject the device to a high pressure or impact.
- Insert the device in the correct direction. Otherwise this can damage the device or TV.
- Electrical interference, static electricity, or erroneous operation may damage the data or device.
- Back up the recorded data at regular intervals to prevent data deterioration, data damage or erratic operation of the TV. Panasonic is not liable for any deterioration or damage of recorded data.

SD Card

■ SD Card

Use an SD Card which meets SD standards. Failure to do so may cause the TV to malfunction.

1 2.1 mm
2 32 mm
3 24 mm

Card format:

SDXC Card - exFAT

SDHC Card / SD Card - FAT16 or FAT32

Compliant card type (maximum capacity):

SDXC Card (64 GB), SDHC Card (32 GB), SD Card (2 GB), miniSD Card (2 GB) (miniSD adaptor required)

- When using a miniSD Card, insert / remove it together with the adaptor.

USB devices

- It is recommended to connect the device to the TV's USB port directly.
- Some USB devices or USB HUB may not be used with this TV.
- You cannot connect any devices using a USB card reader.
- Additional information for the devices may be found on the following website.

  http://panasonic.net/viera/support (English only)

■ USB Flash Memory

USB Flash Memory format:

FAT16, FAT32 or exFAT

- USB HDDs formatted on a PC are not guaranteed to work in Media Player.

■ USB HDD

- The capacity of USB HDD that works with this TV is from 160 GB to 3 TB.
- Connect the USB HDD to the socket outlet to record and play back properly with this TV.
- Use the USB HDD formatted with this TV.

  → Recording > USB HDD setup > Setting for USB HDD
- Regarding performance, not all USB HDDs are guaranteed. Check the USB HDDs that have been tested for compatibility with this TV at the following website.

  http://panasonic.net/viera/support (English only)

Photo format

■ Supported Photo formats

- JPEG (.jpg, .jpeg, .mpo)

  Sub-sampling:

  4:4:4, 4:2:2, 4:2:0

  Image resolution (pixel):

  8 × 8 to 30 719 × 17 279

- DCF and EXIF standards
- Progressive JPEG is not supported.

= Note =

- Some files may not be played back even if they fulfil these conditions.
- Do not use multi-byte characters or other special codes for file names.
- Connected devices may become unusable with this TV if the file or folder names are changed.

Video format

■ Supported Video formats

- SD-Video (.mod)

  Video codec:

  MPEG1, MPEG2

  Audio codec:

  Dolby Digital, MPEG Audio

- SD-Video Standard Ver. 1.31 (Entertainment Video Profile)
- The data may not be available if a folder structure on the device is modified.

- AVCHD (.mts)

  Video codec:

  H.264 BP/MP/HP

  Audio codec:

  Dolby Digital

- AVCHD Standard Ver. 2.0 (AVCHD 3D, AVCHD Progressive)
- The data may not be available if a folder structure on the device is modified.

- AVI (.avi)

  Video codec:

  H.264 BP/MP/HP, MPEG1, MPEG2, MPEG4 SP/ASP, VC-1, Windows Media Video Ver. 9

  Audio codec:

  AAC, ADPCM, Dolby Digital, Dolby Digital Plus, DTS core, HE-AAC, LPCM, MPEG Audio, MP3, WMA, WMA Pro

- Some subtitles or chapter functions may not be available.

- MP4 (.f4v, .m4v, .mp4)

  Video codec:

  H.264 BP/MP/HP, H.265 (HEVC), MPEG1, MPEG2, MPEG4 SP/ASP

  Audio codec:

  AAC, Dolby Digital, Dolby Digital Plus, HE-AAC, MPEG Audio, MP3

- This TV supports this container recorded with Panasonic products. For details, read the manual of the products.

- MKV (.mkv)

  Video codec:

  H.264 BP/MP/HP, MPEG1, MPEG2, MPEG4 SP/ASP

  Audio codec:

  AAC, Dolby Digital, Dolby Digital Plus, DTS core, HE-AAC, MPEG Audio, MP3, Vorbis

- Some subtitles or chapter functions may not be available.

- ASF (.asf, .wmv)

  Video codec:

  MPEG4 SP/ASP, VC-1, Windows Media Video Ver. 9

  Audio codec:

  AAC, Dolby Digital, Dolby Digital Plus, HE-AAC, LPCM, MP3, WMA, WMA Pro

- Copy-protected files cannot be played back.

- FLV (.flv)

  Video codec:

  H.264 BP/MP/HP

  Audio codec:

  AAC, MP3

- 3GPP (.3gp, .3g2)

  Video codec:

  H.264 BP/MP/HP, MPEG4 SP/ASP

  Audio codec:

  AAC, HE-AAC

- PS (.mod, .mpg, .mpeg, .vob, .vro)

  Video codec:

  H.264 BP/MP/HP, MPEG1, MPEG2, VC-1

  Audio codec:

  AAC, Dolby Digital, Dolby Digital Plus, HE-AAC, LPCM, MPEG Audio, MP3

- TS (.mts, .m2ts, .tp, .trp, .ts, .tts)

  Video codec:

  H.264 BP/MP/HP, H.265 (HEVC), MPEG1, MPEG2, VC-1

  Audio codec:

  AAC, Dolby Digital, Dolby Digital Plus, DTS core, HE-AAC, MPEG Audio, MP3

- RealMedia (.rmvb, .rm)

  Video codec:

  RealVideo 8 (RV30), RealVideo 9 (RV40), RealVideo 10 (RV40)

  Audio codec:

  RealAudio - cook / raac (AAC) / racp (HE-AAC)

■ Supported Subtitles formats

- MicroDVD, SubRip, TMPlayer (.srt, .sub, .txt)

• The video file and subtitles text file are inside the same folder, and the file names are the same except for the file extensions.

• If there are more than one subtitles text files inside the same folder, they are displayed in the following order of priority: “.srt”, “.sub”, “.txt”.

= Note =

• Some files may not be played back even if they fulfil these conditions.

• Do not use multi-byte characters or other special codes for file names.

• Connected devices may become unusable with this TV if the file or folder names are changed.

• Supported formats are different in Media Player and media server.

Music format

■ Supported Music formats

- MP3 (.mp3)

- AAC / Apple Lossless (.m4a)
  - Copy-protected files cannot be played back.

- FLAC (.flac)

- WMA / WMA Pro (.wma)
  - Copy-protected files cannot be played back.
  - WMA Lossless is not supported.

- LPCM (.wav)

= Note =

- Some files may not be played back even if they fulfil these conditions.
- Do not use multi-byte characters or other special codes for file names.
- Connected devices may become unusable with this TV if the file or folder names are changed.

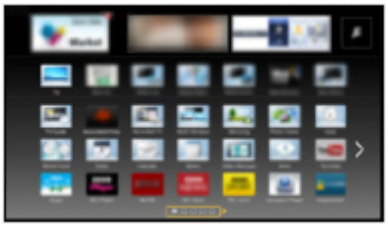
Network

Internet content

Information

You can access some specific websites supported by Panasonic, and enjoy internet contents such as videos, games, communication tools, etc. from APPS List.

(Example)



- To enable this function, you need a broadband network environment. Ensure the network connections and network settings are completed.

  Network > Network connections

  Network > Network settings

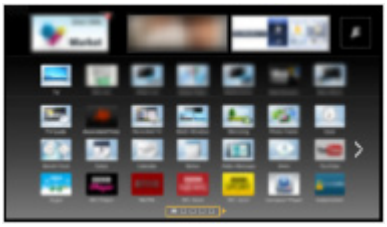
Selecting internet content

1. Display APPS List with APPS.
   - For details of APPS List

     my Home Screen > APPS List

   - Depending on the usage conditions, it may take a while to read all the data.
2. Select the desired item with △ / ▽ / ◁ / ▷ and press OK to access.

   (Example)

   - To return to APPS List

     APPS
   - To exit APPS List

     EXIT

- You may operate the internet contents with the free cursor and Voice Control function of Touch Pad Controller (supplied).

  Functions > Voice Control

- You can connect a keyboard for character input in the applications. You can also use the keyboard for TV operation as well as for APPS List.

  Functions > Bluetooth devices

  Functions > Keyboard

Note

- If you cannot access the internet contents, check the network connections and settings.

  Network > Network connections

  Network > Network settings

- APPS List is subject to change without notice.
- Not all the features of the websites are available.
- Be sure to update the software when a software update notice is displayed on the TV screen. If the software is not updated, you may not be able to use APPS List. You can update the software later manually.

  Network > Network settings > Software Update

- The services through APPS List are operated by their respective service providers and such service may be discontinued either temporarily or permanently without notice. Therefore, Panasonic will make no warranty for the contents or the continuity of the services.
- Some contents may be inappropriate for some viewers.
- Some contents may only be available for specific countries and may be presented in specific languages.
- Depending on the connection environment, the internet connection may be slow or may not be successful.

DLNA

Information

This TV is a DLNA Certified™ product.

DLNA® (Digital Living Network Alliance) is a standard that makes DLNA Certified digital electronics easier and more convenient to use on a home network. To learn more, visit www.dlna.org.

- To enable this function, connect this TV to your home network.

  Network > Network connections

  Network > Network settings

■ Playback of sharing contents stored in the media server

Store photos, videos or music contents into the DLNA Certified media server (for example, PC with Windows 7 / Windows 8 installed, etc.) connected to your home network. And then you can enjoy these contents on this TV.

(Example)

- For watching and operating contents on this TV

  Network > DLNA > Using DLNA

- For supported file formats

  Network > Technical information

● To use a PC as a media server

Prepare the PC with Windows 7 / Windows 8 or ensure the server software is installed on the PC. “Windows 7 / Windows 8” and “Twonky 7 (installed on the PC with Windows XP or Mac)” are the server software that has been tested for compatibility with this TV (as of December, 2013). Any other server software has not been tested with this TV, therefore compatibility and performance cannot be assured.

- Windows 7 / Windows 8

  The setup for homegroup settings of Windows 7 / Windows 8 is required. For details, refer to the help functions of Windows 7 / Windows 8.

- Twonky

  “Twonky” is the product of PacketVideo Corporation.

  To obtain the Installation Guides for installing and setting “Twonky”, visit the website of TwonkyMedia.

  Additional fees may be charged to obtain server software.

= Note =

- For more information about the server software, please consult each software company.
- When server software for the media server is installed on the PC, the data on the PC may be at risk of being accessed by other people. Please take care of the settings and connections under the network circumstances in office, hotel or even at home when not using a router.

■ Playback of sharing contents on this TV with the DMC (Digital Media Controller) network equipment

You can enjoy contents stored in the media server by controlling with the DMC network equipment (smartphone, PC with Windows 7 / Windows 8 installed, etc.) connected to your home network.

- To use this function with your smartphone or Windows 7 / Windows 8, set TV Remote App Settings of this TV.

  Network > Network settings > TV Remote App Settings

  And you need to install the application for controlling VIERA on your smartphone. For information of the application:

  http://panasonic.net/viera/support (English only)

  For the operations, refer to the support information of the application.

- “Windows 7 / Windows 8” are the OS that have been tested for compatibility of this TV (as of December, 2013). For the operations, refer to the help functions of Windows 7 / Windows 8.

■ Sharing the TV programme or contents of this TV with another piece of network equipment

You can enjoy the current digital TV programme or the contents*1 of this TV on the other DLNA Certified VIERA, your smartphone, etc. connected to your home network. You can also select the channel and watch TV on your smartphone*2.

For example, watching the TV programme on your smartphone in the other room, etc.

*1 : Available contents:

- Contents that can be played back in Media Player of this TV and another piece of network equipment
- TV programmes recorded on USB HDDs with this TV

*2 : To use this function with your smartphone, you need to install the application for controlling VIERA in your smartphone. For information of the application:

http://panasonic.net/viera/support (English only)

For the operations, refer to the support information of the application.

- To use this function with another DLNA Certified VIERA, set Network Link Settings of this TV.

  Network > Network settings > Network Link Settings

- Sharing the current programme may not be available when selecting radio channels, encrypted (copy-protected) programmes or when the broadcast prohibits the output of video and audio.

= Note =

- To use this function, turn this TV on.
- This function is available only with 1 piece of other equipment.
- You may be able to control this TV using your smartphone. For details, refer to the support information of the application.
- This function may not be available in the following conditions of this TV:
  - While recording is in progress
  - When watching the content of 4K format

Using DLNA

To use DLNA® features, ensure the preparations of the media server, network connections and network settings are completed.

Network > DLNA > Information

Network > Network connections

Network > Network settings

1. Display APPS List with APPS.
2. Select Media Server with △ / ▽ / ◁ / ▷ and press OK to access.
3. Select one of the media servers with △ / ▽ and press OK to access.
   - For the operations to access another TV, select the name of another TV from the displayed media server list.
   - To display / hide information of the highlighted media server

     INFO
4. Select the file with △ / ▽ and press OK to access.

   (Example)

   - Depending on the condition of media server, you may need to select the folder before selecting the file.
   - To display / hide information of the highlighted file

     INFO

= Note =

- Non-playable files are also listed but cannot be selected.
- You can use the following buttons during playback. Confirm the remote control code is “73”.

◀◀ ⏮ ▶▶ ⏭ ▶ ■ ⏸

Watching > External equipment > Operating with TV’s remote control

Network connections

Internet connection

To use internet service, you need a broadband network environment.

- If you do not have any broadband network services, please consult your retailer for assistance.
- Dial-up internet connections cannot be used.
- Required speed (effective): at least 1.5 Mbps for SD (Standard Definition) and 6 Mbps for HD (High Definition) picture quality, respectively. If the transfer speed is not enough, contents may not be played back properly.

■ Wireless connection

1 Built-in wireless LAN (Rear of the TV)

2 Access point

3 Internet environment

■ Wired connection

1 ETHERNET terminal

2 LAN cable (Shielded)

- Use the Shielded Twist Pair (STP) LAN cable.

3 Internet environment

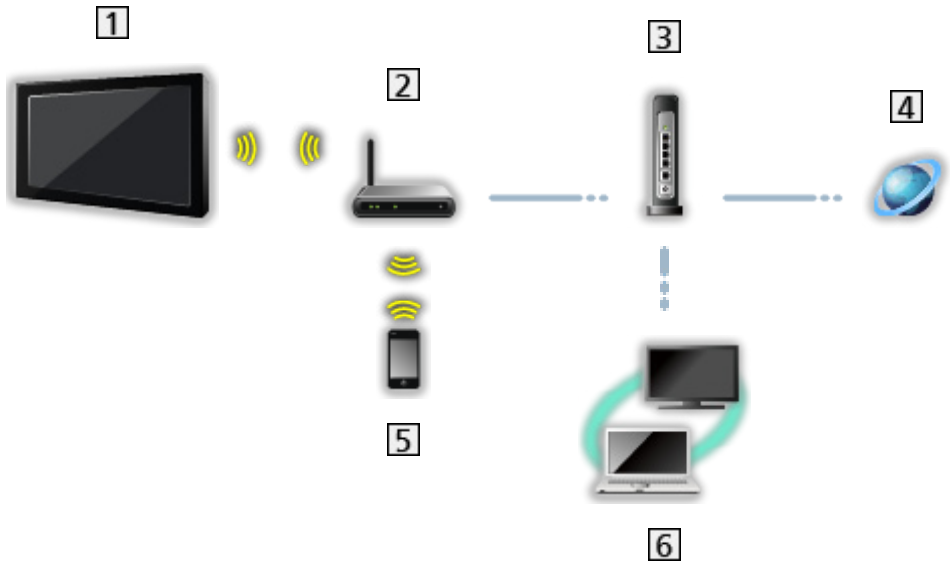
DLNA connection

To use DLNA features, you need a home network environment and you can operate the features without a broadband network environment.

- To use internet service, you need a broadband network environment.

  Network > Network connections > Internet connection

■ Wireless connection (For DLNA and internet service)



1 Built-in wireless LAN (Rear of the TV)

2 Access point

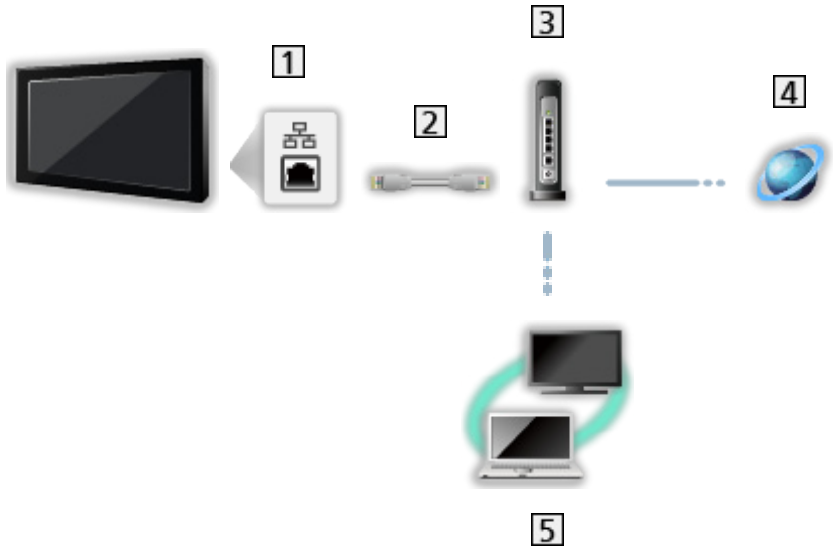
3 Hub or Router

4 Internet environment

5 Smartphone

6 DLNA Certified media server (PC, etc.)

■ Wired connection (For DLNA and internet service)



1 ETHERNET terminal

2 LAN cable (Shielded)

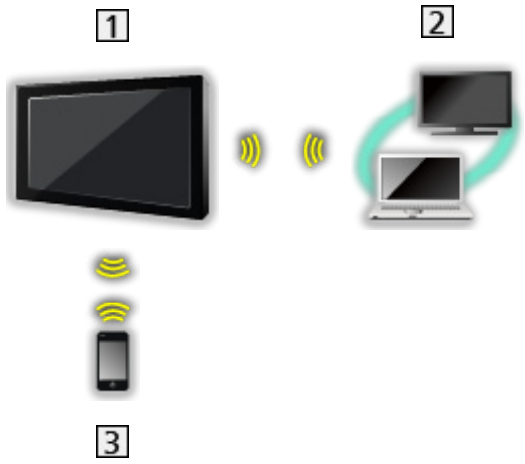
- Use the Shielded Twist Pair (STP) LAN cable.

3 Hub or Router

4 Internet environment

5 DLNA Certified media server (PC, etc.)

■ Wireless connection (For DLNA)



1 TV

- To use the TV as a wireless access point

→ Network > Network settings > Custom - Wireless Access Point

2 DLNA Certified media server (PC, etc.)

3 Smartphone

Note

- Ensure to use a LAN straight cable.
- Set up and connect equipment required for the network environment. You cannot make such settings on this TV. Read the manual of the equipment.
- If your modem has no broadband router functions, use a broadband router.
- If your modem has broadband router functions but there are no vacant ports, use a hub.
- Ensure that the broadband routers and hubs are compatible with 10BASE-T / 100BASE-TX / 1000BASE-T.
- If you use the equipment compatible only with 100BASE-TX or 1000BASE-T, following LAN cables are required:

  100BASE-TX: category 5 or later

  1000BASE-T: category 5e or later
- Contact your Internet Service Provider (ISP) or telecommunications company for further assistance regarding the network equipment.
- Confirm the terms and conditions of the contracts with your Internet Service Provider (ISP) or telecommunications company. Depending on the contracts, additional fees may be charged or multiple connections to the internet may be impossible.
- Turn the TV off with Mains Power On / Off switch, and then on again when changing or making the network connection again.
- Depending on the network condition, the content may not be played back properly.

Network settings

Network Connection

Ensure the connections are completed before starting network setup.

Network > Network connections

■ Quick setup - Wireless

1. Display the menu with MENU.
2. Select Network > Network Connection with △ / ▽ and press OK to access.
   - Confirm the encryption key, settings and position of your access point before starting setup. For details, read the manual of the access point.
3. Select Quick setup with ◁ / ▷ and press OK to access.
   - When the LAN cable is connected, wired setup will be done automatically.
4. Select your desired access point with △ / ▽ and press OK to access.
   - Available Wireless Networks are displayed automatically.

     : Encrypted access point
   - For WPS(Push button)
     1) Select Easy setup with Push button with △ / ▽ and press OK to access.
     2) Press the WPS button on the access point until the light flashes.
     3) Connect the TV with the access point with OK.

     – WPS: Wi-Fi Protected Setup™

     – If the connection has failed, check the settings and positions of your access point. And then, follow the on-screen instructions.
   - It is recommended to select the encrypted access point.
5. Enter the encryption key of the access point with △ / ▽ / ◁ / ▷ and press OK to set.
   - You can set characters using Numeric buttons.

   - Press RETURN to store.
6. Automatically setup is done and Network Status is displayed.

Network > Network settings > Network Status

7. Select Exit with ◁ / ▷ and press OK to set.

- To set manually

  → Network > Network settings > Custom - Wireless

■ Quick setup - Wired

1. Display the menu with MENU.
2. Select Network > Network Connection with △ / ▽ and press OK to access.
3. Select Quick setup with ◁ / ▷ and press OK to access.
4. Automatically setup is done and Network Status is displayed.

   → Network > Network settings > Network Status
5. Select Exit with ◁ / ▷ and press OK to set.

- To set manually

  → Network > Network settings > Custom - Wired

= Note =

- When the network connection type is set to Wired, Wireless is deactivated.

Custom - Wireless

Ensure the connections are completed before starting network setup.

→ Network > Network connections

1. Display the menu with MENU.
2. Select Network > Network Connection > Custom > Wireless with △ / ▽ / ◁ / ▷ and press OK to access.
   - Confirm the encryption key, settings and position of your access point before starting setup. For details, read the manual of the access point.
3. Select your desired access point with △ / ▽ and press OK to access.
   - Available Wireless Networks are displayed automatically.

     : Encrypted access point
   - For WPS(Push button)

     1) Press (red).
     2) Press the WPS button on the access point until the light flashes.
     3) Connect the TV with the access point with OK.

     – WPS: Wi-Fi Protected Setup™

     – If the connection has failed, check the settings and positions of your access point. And then, follow the on-screen instructions.

- For WPS(PIN)
  1) Press (green).
  2) Enter the PIN code to the access point.
  3) Connect the TV with the access point with OK.
- For Manual
  1) Press (yellow).
  2) You can set up SSID, security type, encryption type, and encryption key manually.
  3) Follow the on-screen instructions and set manually.
  – When you use 11n (5 GHz) for the wireless system between the built-in wireless LAN and access point, select AES for the encryption type.
- To search access points again

  (blue)
- To display / hide information of the highlighted access point

  INFO
- It is recommended to select the encrypted access point.

4. Enter the encryption key of the access point with △ / ▽ / ◁ / ▷ and press OK to set.
   - You can set characters using Numeric buttons.

   - Press RETURN to store.
5. IP/DNS Settings is displayed.

Acquire IP Address / Acquire DNS Address

- Auto is recommended.
- Available settings are displayed automatically.
- To set manually, select and set IP Address / Subnet Mask / Default Gateway / DNS Address.

Proxy Settings

- It is not required for normal household use.
- Some internet services may not be available depending on the proxy settings.

Proxy:

This is the address of the relay server which is connected between the browser and the target server to send data to the browser.

1) Select Proxy with △ / ▽ and press OK to access.
2) Enter the address with △ / ▽ / ◁ / ▷ or Numeric buttons, and press OK to set.

3) Press RETURN to store.

Proxy Port:

This number is also specified by the provider with the proxy address.

1) Select Proxy Port with △ / ▽.
2) Enter the number with Numeric buttons.

3) Press RETURN to store.

---

6. Select Network Status with △ / ▽ and press OK to access.

   Network > Network settings > Network Status

7. Select Exit with ◁ / ▷ and press OK to set.

Custom - Wired

Ensure the connections are completed before starting network setup.

Network > Network connections

1. Display the menu with MENU.
2. Select Network > Network Connection > Custom > Wired with △ / ▽ / ◁ / ▷ and press OK to access.
3. IP/DNS Settings is displayed.

Acquire IP Address / Acquire DNS Address

- Auto is recommended.
- Available settings are displayed automatically.
- To set manually, select and set IP Address / Subnet Mask / Default Gateway / DNS Address.

Proxy Settings

- It is not required for normal household use.
- Some internet services may not be available depending on the proxy settings.

  Proxy:

  This is the address of the relay server which is connected between the browser and the target server to send data to the browser.

  1) Select Proxy with △ / ▽ and press OK to access.
  2) Enter the address with △ / ▽ / ◁ / ▷ or Numeric buttons, and press OK to set.

  3) Press RETURN to store.

  Proxy Port:

  This number is also specified by the provider with the proxy address.

  1) Select Proxy Port with △ / ▽.
  2) Enter the number with Numeric buttons.

  3) Press RETURN to store.

---

4. Select Network Status with △ / ▽ and press OK to access.

   Network > Network settings > Network Status

5. Select Exit with ◁ / ▷ and press OK to set.

= Note =

- When the network connection type is set to Wired, Wireless is deactivated.

Custom - Wireless Access Point

You can use the TV as a wireless access point and connect the network equipment without an access point.

- Confirm the PIN code, network settings of the equipment before starting setup. For details, read the manual of the equipment.

1. Display the menu with MENU.
2. Select Network > Network Connection > Custom > Wireless Access Point with △ / ▽ / ◁ / ▷ and press OK to access.

3. Select Connect to device in WPS with △ / ▽ and press OK to access.
   - To set manually, select Change settings (see below).
4. Select and set WPS(Push button) / WPS(PIN) with △ / ▽ and press OK to access.

   WPS(Push button):

   Set up the equipment for WPS(Push button). For details, read the manual of the equipment.

   WPS(PIN):

   Enter the PIN code of the equipment.

   - If the connection has failed, check the settings and positions of the equipment. And then, follow the on-screen instructions.

■ Change settings

You can set up Network name(SSID), Encryption key and Channel setting method manually.

Follow the on-screen instructions and set manually.

- Set Reset settings to reset the items of Change settings.

= Note =

- You cannot connect the internet service while the TV is set to Wireless Access Point.
- You can connect up to 7 devices. But the transfer rate will vary according to communication environment or the numbers of connected equipment.
- To confirm the current network settings

  → Network > Network settings > Network Status
- Ensure the equipment to connect supports WPS for this setup.
- WPS: Wi-Fi Protected Setup™

Network Status

Displays and checks the network status (MAC Address, current network settings, etc.).

1. Display the menu with MENU.
2. Select Network > Network Status with △ / ▽ and press OK to access.
3. Automatically testing is done and Network Status is displayed.

   Try Again:

   Performs automatic testing of the network connection for the TV and displays the current status again.

   Status Details:

   Displays the detailed network status (SSID, security type, encryption type, etc.).

- For more information of the network connection, select Help.

my Home Cloud Settings

Displays the terms of service for the cloud services.

1. Display the menu with MENU.
2. Select Network > my Home Cloud Settings > Notices with △ / ▽ and press OK to access.
3. Follow the on-screen instructions.

- To set up an account for the cloud services

  → Functions > User profile > Settings

VIERA Name

Sets your favourite name for this TV.

- This name will be used as the name of this TV on the screen of the other network equipment.
- When you use two or more TVs in your network environment, set the names of the TVs for each.

TV Remote App Settings

Sets to control the TV with the equipment (smartphone, etc.) connected to your network.

1. Display the menu with MENU.
2. Select Network > TV Remote App Settings with △ / ▽ and press OK to access.
3. Select one of the following items with △ / ▽ and press OK to access.

TV Remote

(On / Off)

Enables to control the TV from the network equipment (smartphone, etc.).

Powered On by Apps

(On / Off)

Enables to turn the TV on from the network equipment (smartphone, etc.).

- Depending on the network condition, you may have to turn the TV on with Standby On / Off switch of the TV's remote control.
- Changing the default configuration may increase Standby Power Consumption.

Home Streaming

(Always / Only when powered on)

Enables to share the TV programme and contents of this TV with the network equipment (smartphone, etc.) in the home network.

- Changing the default configuration may increase Standby Power Consumption.

Device to upload contents

Selects device to upload contents from the network equipment (smartphone, etc.).

= Note =

- This function is not available when the TV is turned off with Mains Power On / Off switch.
- You need to install the application for controlling VIERA on your smartphone. For information of the application:

  http://panasonic.net/viera/support (English only)

  For the operations, refer to the support information of the application.
- Depending on the network condition, this function may not be available.
- Depending on the area, this function may not be available. For details, consult your local Panasonic dealer.

Network Link Settings

Sets to control the TV with devices connected to the network.

1. Display the menu with MENU.
2. Select Network > Network Link Settings with △ / ▽ and press OK to access.
3. Select one of the following items with △ / ▽ and press OK to access.

   DLNA Server / Registration Type / Remote Device List
4. Set with △ / ▽ and press OK to store.

DLNA Server

(On / Off)

Enables to share the TV programme and contents of this TV with the network equipment (DLNA Certified VIERA, etc.).

- To use this function with another VIERA, select the name of this TV from the DLNA server list of another VIERA, and then select the content to share. Also read the manual of another VIERA.
- To use this function with your smartphone, you need to install the application for controlling VIERA on your smartphone. For information of the application:

  http://panasonic.net/viera/support (English only)

  For the operations, refer to the support information of the application.
- Changing the default configuration may increase Standby Power Consumption.

Registration Type

(Auto / Manual)

Selects the type to restrict the access to this TV for each piece of equipment on the home network.

Auto:

All available equipment on the home network is accessible (maximum 16 pieces of equipment).

Manual:

Sets the restrictions for each piece of equipment in Remote Device List.

Remote Device List

Lists the equipment accessible to this TV on the home network.

= Note =

- Depending on the area, this function may not be available. For details, consult your local Panasonic dealer.

File Sharing Settings

File Sharing Server

(On / Off)

Sets to share the files between PC and devices connected to this TV.

Media Player > Using Media Player > Sharing file

Network Device List

Lists the accessible network devices to play back the contents in Media Player.

Media Player > Using Media Player > Network device

Software Update

Accesses the specific website to update the TV's software if any updates are available.

1. Display the menu with MENU.
2. Select Network > Software Update with △ / ▽ and press OK to access.
3. Follow the on-screen instructions.

New Software Message

Selects whether to give a notification message when new software is found via network or not.

1. Display the menu with MENU.
2. Select Network > New Software Message with △ / ▽ and press OK to access.
3. Select On / Off with △ / ▽ and press OK to set.

Photos

Selecting file

Ensure the preparations of the media server, network connections and network settings are completed.

Network > DLNA > Information

Network > Network connections

Network > Network settings

1. Display APPS List with APPS.
2. Select Media Server with △ / ▽ / ◁ / ▷ and press OK to access.
3. Select one of the media servers with △ / ▽ and press OK to access.
   - For the operations to access another TV, select the name of another TV from the displayed media server list.
   - To display / hide information of the highlighted media server

     INFO
4. Select the file with △ / ▽ and press OK to access.
   - Depending on the condition of media server, you may need to select the folder before selecting the file.
   - To display / hide information of the highlighted file

     INFO

= Note =

- Non-playable files are also listed but cannot be selected.

Viewing photo

■ Playback

- To operate Single view

  ◁ : To the previous photo

  ▷ : To the next photo

  ▽ : Stop (return to list)

  OK : Slideshow

- To display / hide the operation guide

  INFO

- To rotate 90°

  (blue)

- To return to list

  RETURN

Using Slideshow

Slideshow ends when all photos within the list are viewed.

1. Select the file from the thumbnail of photos for the first view with △ / ▽ / ◁ / ▷.
2. Start Slideshow with (red) and OK.

- To display / hide the operation guide

  INFO

- To pause (return to Single view)

  OK

- To return to list

  RETURN

■ Slideshow Settings

Set up the settings for photo file operations on this TV.

1. Display the option menu with OPTION.
2. Select Slideshow Settings with △ / ▽ and press OK to access.
3. Select one of the following items with △ / ▽ and press OK to access.
   Auto Makeup / Interval / Repeat / Back Ground Music
4. Set with △ / ▽ and press OK to store.

Auto Makeup

(On / Off)

Automatically detects the face in the photo and improves luminance and contrast.

Interval

(Long / Normal / Short)

Selects slideshow interval.

Repeat

(On / Off)

Slideshow repeat

Back Ground Music

(Off / Type1 / Type2 / Type3 / Type4 / Type5)

Selects the background music during Photo mode.

Videos

Selecting file

Ensure the preparations of the media server, network connections and network settings are completed.

Network > DLNA > Information

Network > Network connections

Network > Network settings

1. Display APPS List with APPS.
2. Select Media Server with △ / ▽ / ◁ / ▷ and press OK to access.
3. Select one of the media servers with △ / ▽ and press OK to access.
   - For the operations to access another TV, select the name of another TV from the displayed media server list.
   - To display / hide information of the highlighted media server

     INFO
4. Select the file with △ / ▽ and press OK to access.
   - Depending on the condition of media server, you may need to select the folder before selecting the file.
   - To display / hide information of the highlighted file

     INFO

= Note =

- Contents of 4K format may not be played back properly.
- Non-playable files are also listed but cannot be selected.

Watching video

■ Playback

If you have stopped the last playback halfway, the confirmation screen is displayed to select whether to start from where you stopped last time or from the beginning.

- To operate playback

  △ : Manual skip (if available)

  – Press to skip forward approx. 30 seconds.

  ◁ : Rewind

  ▷ : Fast forward

  ▽ : Stop

OK : Pause (displays the time seek bar / slow playback) / Playback

- To jump to the specified time point
  1) Display the time seek bar with OK.
  2) While the time seek bar is displayed

     Press ◁ / ▷ :

     Search approx. 10 seconds

     Press and hold ◁ / ▷ :

     Search rapidly
  3) Jump to the specified time point with OK.
- To play back slowly
  1) Press and hold OK for 5 seconds.

     Press ◁ / ▷ :

     Search slowly
  2) Return to the normal playback with OK.
- To display / hide the operation guide and information banner

  INFO
- To the previous content

  (red)
- To the next content

  (green)
- To change aspect
  1) Display Aspect Selection with ASPECT.
  2) Select the mode with △ / ▽ and press OK to set.

     Aspect1:

     Displays the content enlarged without distortion.

     Aspect2:

     Displays the content full-screen.

     Original:

     Displays the content original size.

  – You can also change the mode pressing ASPECT. (Press repeatedly until you reach the desired mode.)

  – Aspect cannot be changed depending on the content.
- To return to list

  RETURN

Video Setup

Set up the settings for video file operations on this TV.

1. Display the option menu with OPTION.
2. Select Video Setup with △ / ▽ and press OK to access.
3. Select one of the following items with △ / ▽ and press OK to access.

   Video Preview / Multi Audio / Dual Audio / Dual Mono Audio / Subtitle / Subtitle Text / Subtitle Language / Repeat

   - Menu items and selectable options vary depending on the content.
4. Set with △ / ▽ and press OK to store.

Video Preview

(On / Off)

Sets to start the preview of the title or scene in the thumbnail view.

- Images may not be displayed for an instant in the thumbnail view. Set the preview Off to solve this.

Multi Audio, Dual Audio, Dual Mono Audio

Selects for selectable sound tracks (if available).

- It may take several seconds to change the sound.
- This function is available during playback.

Subtitle

Display / hide subtitles (if available).

- This function is available during playback.

Subtitle Text

Selects the font type to display subtitles correctly (if available).

- This function is available during playback.

Subtitle Language

Selects the language for subtitles (if available).

- This function is available during playback.

Repeat

(On / Off)

Playback repeat within the selected file

Audio output settings

You can enjoy the multi-channel sound via an amplifier connected to DIGITAL AUDIO OUT or HDMI2 / HDMI4 (ARC function) terminal.

- To confirm or change the current sound status

  Network > Videos > Video Setup

1. Display the menu with MENU.
2. Select Sound > SPDIF Selection with △ / ▽ and press OK to access.
3. Select Auto / PCM with △ / ▽ and press OK to set.

SPDIF Selection

(Auto / PCM)

Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT and HDMI2 / HDMI4 (ARC function) terminals.

- SPDIF is a standard audio transfer file format.

  Auto:

  Dolby Digital Plus, Dolby Digital and HE-AAC multi-channel are output as Dolby Digital Bitstream. MPEG is output as PCM. DTS is output as DTS.

  PCM:

  Digital output signal is fixed to PCM.

- ARC (Audio Return Channel) is a function of digital audio output using HDMI cable.

= Note =

- During the operation, audio signal is output from DIGITAL AUDIO OUT and HDMI2 / HDMI4 (ARC function) terminals. But no video signals are output. To use HDMI2 / HDMI4 with ARC function, connect an amplifier that has ARC function, set to use theatre speakers and match the output setting in ARC Output in the Sound menu.

  Functions > VIERA Link “HDAVI Control™”

Music

Selecting file

Ensure the preparations of the media server, network connections and network settings are completed.

Network > DLNA > Information

Network > Network connections

Network > Network settings

1. Display APPS List with APPS.
2. Select Media Server with △ / ▽ / ◁ / ▷ and press OK to access.
3. Select one of the media servers with △ / ▽ and press OK to access.
   - For the operations to access another TV, select the name of another TV from the displayed media server list.
   - To display / hide information of the highlighted media server

     INFO
4. Select the file with △ / ▽ and press OK to access.
   - Depending on the condition of media server, you may need to select the folder before selecting the file.
   - To display / hide information of the highlighted file

     INFO

= Note =

- Non-playable files are also listed but cannot be selected.

Playing music

■ Playback

- To operate playback

  ◁ : Rewind

  ▷ : Fast forward

  ▽ : Stop

  OK : Pause (displays the time seek bar) / Playback

- To jump to the specified time point

  1) Display the time seek bar with OK.

  2) While the time seek bar is displayed

     Press ◁ / ▷ :

     Search approx. 10 seconds

     Press and hold ◁ / ▷ :

     Search rapidly

  3) Jump to the specified time point with OK.

- To display / hide the operation guide

  INFO

- To the previous track

  (red)

- To the next track

  (green)

- To return to list

  RETURN

Music Setup

Set up the settings for music file operations on this TV.

1. Display the option menu with OPTION.
2. Select Music Setup > Repeat with OK.
3. Select Off / Folder / One with △ / ▽ and press OK to set.

   Folder:

   Playback repeat within the selected folder

   One:

   Playback repeat of the selected one file

Technical information

Photo format

■ Supported Photo formats

- JPEG (.jpg, .jpeg, .mpo)

  Sub-sampling:

  4:4:4, 4:2:2, 4:2:0

  Image resolution (pixel):

  8 × 8 to 30 719 × 17 279
- DCF and EXIF standards
- Progressive JPEG is not supported.

= Note =

- Some files may not be played back even if they fulfil these conditions.
- Do not use multi-byte characters or other special codes for file names.
- Connected devices may become unusable with this TV if the file or folder names are changed.

Video format

■ Supported Video formats

- SD-Video (.mod)

  Video codec:

  MPEG1, MPEG2

  Audio codec:

  Dolby Digital, MPEG Audio

- SD-Video Standard Ver. 1.31 (Entertainment Video Profile)
- The data may not be available if a folder structure on the device is modified.

- AVCHD (.mts)

  Video codec:

  H.264 BP/MP/HP

  Audio codec:

  Dolby Digital

- AVCHD Standard Ver. 2.0 (AVCHD 3D, AVCHD Progressive)
- The data may not be available if a folder structure on the device is modified.

- AVI (.avi)

  Video codec:

  H.264 BP/MP/HP, MPEG1, MPEG2, MPEG4 SP/ASP, VC-1, Windows Media Video Ver. 9

  Audio codec:

  AAC, ADPCM, Dolby Digital, Dolby Digital Plus, DTS core, HE-AAC, LPCM, MPEG Audio, MP3, WMA, WMA Pro

- Some subtitles or chapter functions may not be available.

- MP4 (.f4v, .m4v, .mp4)

  Video codec:

  H.264 BP/MP/HP, MPEG1, MPEG2, MPEG4 SP/ASP

  Audio codec:

  AAC, Dolby Digital, Dolby Digital Plus, HE-AAC, MPEG Audio, MP3

- This TV supports this container recorded with Panasonic products. For details, read the manual of the products.

- MKV (.mkv)

  Video codec:

  H.264 BP/MP/HP, MPEG1, MPEG2, MPEG4 SP/ASP

  Audio codec:

  AAC, Dolby Digital, Dolby Digital Plus, DTS core, HE-AAC, MPEG Audio, MP3, Vorbis

- Some subtitles or chapter functions may not be available.

- ASF (.asf, .wmv)

  Video codec:

  MPEG4 SP/ASP, VC-1, Windows Media Video Ver. 9

  Audio codec:

  AAC, Dolby Digital, Dolby Digital Plus, HE-AAC, LPCM, MP3, WMA, WMA Pro

- Copy-protected files cannot be played back.

- FLV (.flv)

  Video codec:

  H.264 BP/MP/HP

  Audio codec:

  AAC, MP3

- 3GPP (.3gp, .3g2)

  Video codec:

  H.264 BP/MP/HP, MPEG4 SP/ASP

  Audio codec:

  AAC, HE-AAC

- PS (.mod, .mpg, .mpeg, .vob, .vro)

  Video codec:

  MPEG1, MPEG2

  Audio codec:

  Dolby Digital, LPCM, MPEG Audio

- TS (.mts, .m2ts, .tp, .trp, .ts, .tts)

  Video codec:

  H.264 BP/MP/HP, MPEG1, MPEG2

  Audio codec:

  AAC, Dolby Digital, Dolby Digital Plus, HE-AAC, MPEG Audio

- RealMedia (.rmvb, .rm)

  Video codec:

  RealVideo 8 (RV30), RealVideo 9 (RV40), RealVideo 10 (RV40)

  Audio codec:

  RealAudio - cook / raac (AAC) / racp (HE-AAC)

■ Supported Subtitles formats

- MicroDVD, SubRip, TMPlayer (.srt, .sub, .txt)

• The video file and subtitles text file are inside the same folder, and the file names are the same except for the file extensions.

• If there are more than one subtitles text files inside the same folder, they are displayed in the following order of priority: “.srt”, “.sub”, “.txt”.

= Note =

• Some files may not be played back even if they fulfil these conditions.

• Do not use multi-byte characters or other special codes for file names.

• Connected devices may become unusable with this TV if the file or folder names are changed.

• Supported formats are different in Media Player and media server.

Music format

■ Supported Music formats

- MP3 (.mp3)

- AAC / Apple Lossless (.m4a)
  - Copy-protected files cannot be played back.

- FLAC (.flac)

- WMA / WMA Pro (.wma)
  - Copy-protected files cannot be played back.
  - WMA Lossless is not supported.

- LPCM (.wav)

= Note =

- Some files may not be played back even if they fulfil these conditions.
- Do not use multi-byte characters or other special codes for file names.
- Connected devices may become unusable with this TV if the file or folder names are changed.

Functions

User profile

Information

Setting user profile allows you to enjoy the recommended contents, your favourite Home Screen, Info Bar, cloud services, etc.

- To display Info Bar

  → Functions > Info Bar

- To use my Stream

  → Functions > User profile > my Stream

= Note =

- You need a broadband network environment to use this function fully.

Settings

You can create and edit a user profile.

■ To edit a user profile

1. Display the main menu with MENU.
2. Select Setup > User Settings with △ / ▽ and press OK to access.
3. Select a user with ◁ / ▷ and press OK to access.
   - To create a new user, select Create new user.
4. Select one of the following items with △ / ▽ and press OK to access.

(Your icon / Your name / Your voice / Your face / Main Home Screen / my Home Cloud account)

5. Follow the on-screen instructions.

Your icon

Sets your favourite user icon.

Your name

Sets the name of the user.

Your voice

Registers the voice data of the user for Voice Print Recognition.

Your face

Registers the face data of the user for Face Recognition.

Main Home Screen

Selects Home Screen to be displayed when using Voice Control function. To use this function, you need to register your voice data or face data.

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my Home Cloud account

Sets up an account for the cloud services.

■ To delete a user profile

1. Display the main menu with MENU.
2. Select Setup > User Settings with △ / ▽ and press OK to access.
3. Select a user with ◁ / ▷ and press OK to access.
4. Select Remove this user with △ / ▽ and press OK to access.
5. When the confirmation screen is displayed, select Yes with ◁ / ▷ and press OK to set.

= Note =

- You need a broadband network environment to use this function fully.

→ Network > Network connections

→ Network > Network settings

my Stream

Automatically provides the recommended contents (TV programmes, internet content, etc.).

1. Display APPS List with APPS.
2. Select my Stream with △ / ▽ / ◁ / ▷ and press OK to access.
3. Follow the on-screen instructions.

- To register a content as your favourite

  Functions > Touch Pad Controller > My button

= Note =

- You need a broadband network environment to use this function fully.

■ Face Recognition / Voice Print Recognition

By using the built-in Camera and Voice Control function, this TV recognises your face / voice and provides the recommended contents.

- Say “my Stream” into the microphone of the Touch Pad Controller to use this function.
- To use this function, you need to set up a user profile and register face / voice data, etc.

  Functions > User profile > Settings

- For details of the built-in Camera

  Functions > Built-in Camera > Using built-in Camera

- For details of Voice Control function

  Functions > Voice Control

Info Bar

Information

Automatically detects human activity and displays some information or messages on the bottom of the screen. Voice operation is also available.

■ Info Bar

(Example)

Information area

- To use this function, set Info Bar Settings.

  → Functions > Info Bar > Settings

- To set user profile

  → Functions > User profile

- You need a broadband network environment to use this function fully.
- Built-in Camera and Built-in Microphone are available when Info Bar is set to On. Voice command is displayed with icon “ “.

Settings

This setting allows you to adjust the items for Info Bar function.

1. Display the main menu with MENU.
2. Select Setup > Info Bar Settings with △ / ▽ / ◁ / ▷ and press OK to access.
3. Select one of the following items with △ / ▽ and press OK to access.

Info Bar / Sensor sensitivity / Sound Effect volume

4. Set with △ / ▽ and press OK to store.

Info Bar

(On / Off)

Enables Info Bar function.

Sensor sensitivity

(High / Low)

Adjusts the sensitivity of the human activity sensor.

Sound Effect volume

(High / Low / Off)

Adjusts the volume of sound effect for Info Bar function.

= Note =

- You need a broadband network environment to use this function fully.

  Network > Network connections

  Network > Network settings

Human activity sensor

■ Available range for the human activity sensor

Range: Within approx. 5 m

Horizontal: Within approx. 35°

Vertical (upward): Within approx. 15°

Vertical (downward): Within approx. 7.5°

- This range is available when Sensor sensitivity is set to High.

= Note =

- Human activity sensor detects the gap between the room and human body of temperature. The available range may be different depending on the surrounding temperature, clothes, etc. Human activity sensor may mistakenly detect the heat source such as direct sunlight, animals (dog, cat, etc.), warm air from air conditioner, heater, electric pot, etc.
- Sideways or lengthways movement can be detected easily, but back and forth movement or a slight movement may not be detected strictly.
- Human activity sensor may not work properly when there is a reflecting object (mirror, etc.) in the available range or any objects between the human activity sensor and person.

Built-in Camera

Using built-in Camera

You can use the built-in Camera as a communication tool for specific applications such as face recognition, video message, etc.

my Home Screen > my Home Screen > Settings

= Note =

- Please note that under certain circumstances, audio / video recording may be prohibited by local laws. This appliance should be used only in compliance with all applicable laws, regulations and statutes.

■ Built-in Camera

Automatically comes out and back in by the operation of a camera application.

- Do not pull or push the camera by hands.

= Note =

- Face recognition may not work properly depending on surrounding environment or condition (for example, darkened room, etc.).
- The applications such as video communication need a broadband network environment. Ensure the network connections and network settings are completed.

  Network > Network connections

  Network > Network settings
- This function is subject to change without notice.

Voice Control

Preparations

Voice Control function allows you to operate the TV (e.g. selecting a channel), search the content from various features, etc. with your speech.

- To use this function fully, you need a broadband network environment. Ensure the network connections and network settings are completed.

  → Network > Network connections

  → Network > Network settings

- Ensure the pairing of Touch Pad Controller is completed.

  → Functions > Touch Pad Controller > Settings

■ Voice Control Settings

1. Display the menu with MENU.
2. Select Setup > Voice Control Settings > Language / Speech Detection Level / Terms of Service with △ / ▽ and press OK to access.
3. Set with △ / ▽ / ◁ / ▷ and press OK to store.

Language

Select the language for Voice Control function.

- All languages may not be available. When the selected language is not supported, Language is set to English automatically.

Speech Detection Level

(High / Standard)

Adjusts the sensitivity to recognise your speech.

Terms of Service

Displays the terms of service.

= Note =

- To use Voice Control function fully, you need a broadband network environment, because this function accesses the speech recognition server with the internet connection. Even if you have the internet environment, this function may not be available depending on the proxy settings. Please connect the internet without proxy settings. (Proxy settings are not required for normal household use. For details of internet environment, consult your Internet Service Provider (ISP) or telecommunications company.)

How to use

1. Press of Touch Pad Controller.
   - When the confirmation screen is displayed, read carefully and start Voice Control function.
2. The operation guide is displayed and follow the on-screen instructions.

- To display voice command list

  OPTION

- To exit Voice Control function

  RETURN

= Note =

- When you start Voice Control function, sound level of the TV becomes low.
- Voice Control function may not work properly in the following conditions.
  - Not pronounce clearly and correctly
  - Volume level of your voice is too loud or too low.
  - Surrounded by the noise
- Phrases other than Voice Command may not be recognised.
- It is recommended to speak within about 15 cm from the integrated microphone of Touch Pad Controller when using Voice Control function.
- Voice Control function is subject to change without notice.

Touch Pad Controller

Information

Touch Pad Controller is designed for the convenient operations, especially, on Home Screen or internet contents. You can operate the TV intuitively with this controller.

- Touch Pad Controller can be used by registering to this TV with Bluetooth wireless technology.
- After registering, you can operate the TV without pointing this controller at the TV (except Standby On / Off switch).
- To use Standby On / Off switch, point the controller directly at the TV's remote control signal receiver because it works with the infrared. (You can operate the switch without registration.)
- It is recommended to speak within about 15 cm from microphone of Touch Pad Controller when using Voice Control function.

My button

Press ★ (my button) of Touch Pad Controller on my Stream or other available contents to register the content as your favourite.

- Your registered favourites are reflected on my Stream.

  → Functions > User profile > my Stream

- To select the user, set User Settings.

  → Functions > User profile > Settings

Settings

1. Display the menu with MENU.
2. Select Setup > VIERA Touch Pad Controller with △ / ▽ and press OK to access.
3. Select one of the following items with △ / ▽ and press OK to access.

   Pairing / Cursor Settings / Operation Guide
4. Follow the on-screen instructions.

Pairing

Registers Touch Pad Controller (supplied) to this TV.

- Only 1 Touch Pad Controller can be registered.

Cursor Settings

Sets for the cursor of Touch Pad Controller.

Operation Guide

Displays the operation guide of Touch Pad Controller.

VIERA Link “HDAVI Control™”

Summary of VIERA Link

Enjoy additional HDMI Inter-Operability with Panasonic products which have “HDAVI Control™” function.

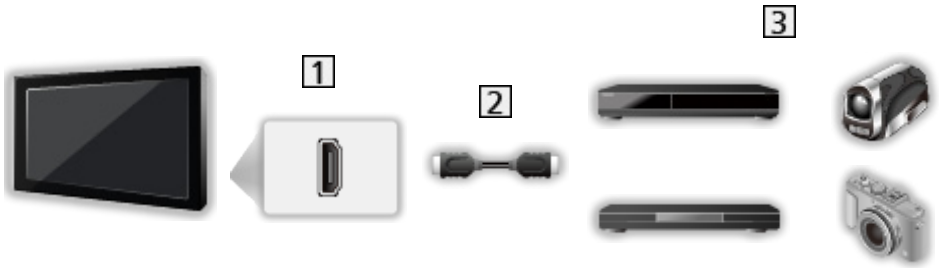
VIERA Link (HDAVI Control) connects the TV and the equipment with VIERA Link function, and enables easy control, playback, energy saving, creating home theatre, etc. without complicated settings. Connections to the equipment (DVD Recorder, HD Video Camera, Player theatre, Amplifier, etc.) with HDMI cables allow you to interface them automatically. These features are limited to models incorporating “HDAVI Control” and “VIERA Link”.

- This TV supports “HDAVI Control 5” function.
- Some functions are not available depending on the equipment’s version of HDAVI Control. Confirm the connected equipment’s version of HDAVI Control.
- VIERA Link “HDAVI Control” is a unique function that we have developed and added based on the control functions provided by HDMI which is an industry standard known as HDMI CEC (Consumer Electronics Control). As such, its operation with other manufacturers’ product that supports HDMI CEC cannot be guaranteed.
- VIERA Link features may be available even with other manufacturers’ equipment supporting HDMI CEC.
- Please refer to individual manuals for other manufacturers’ product supporting VIERA Link function.
- About applicable Panasonic product, consult your local Panasonic dealer.

■ VIERA Link (HDMI connection)

- Use a fully wired HDMI compliant cable.
- Connect the equipment supporting VIERA Link to the TV's HDMI terminal via an HDMI cable.

  About HDMI cable for connecting Panasonic HD Video Camera or LUMIX Camera, read the manual of the equipment.



1 HDMI terminal

2 HDMI cable

3 Equipment with VIERA Link function (DIGA Recorder / DVD Player / Blu-ray Disc Player / HD Video Camera / LUMIX Camera)

■ Available features (HDMI connection)

DIGA Recorder / DVD Player / Blu-ray Disc Player

- Easy playback
- Power on Link
- Power off Link
- Standby Power Save*2
- Intelligent Auto Standby*2
- VIERA Link Control*1

HD Video Camera / LUMIX Camera

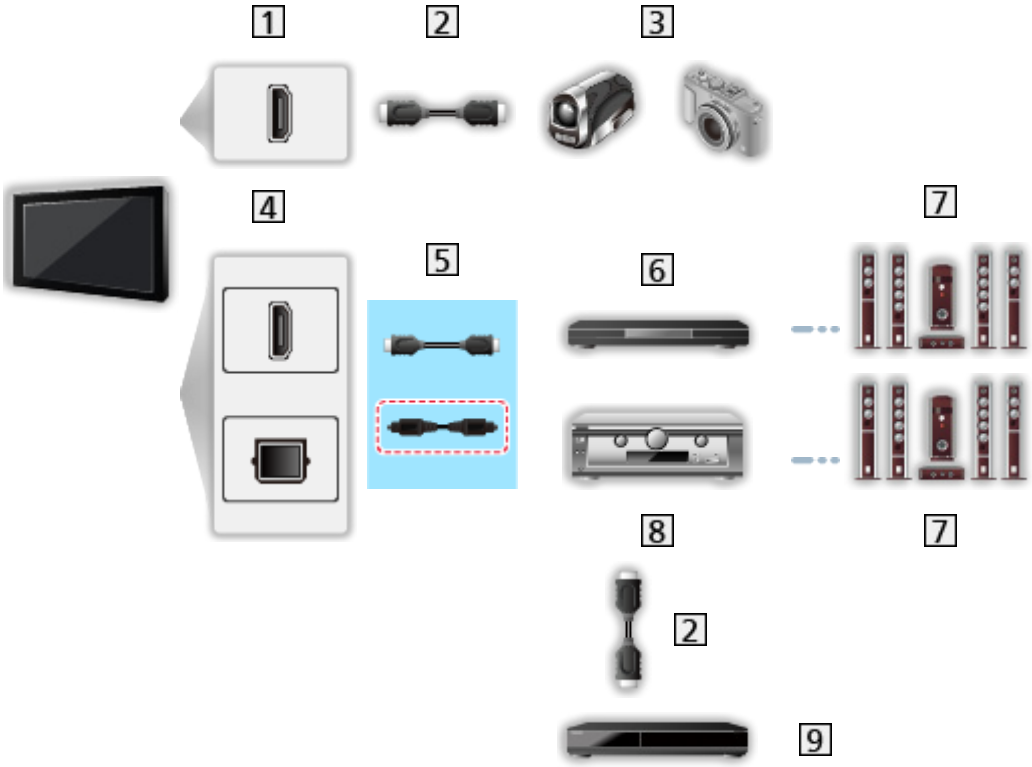
- Easy playback
- Power on Link
- Power off Link
- VIERA Link Control*1

*1 : For equipment which has "HDAVI Control 2 or later" function.

*2 : For equipment which has "HDAVI Control 4 or later" function.

■ VIERA Link (HDMI and Audio out connections)

- Use a fully wired HDMI compliant cable.
- Connect the equipment supporting VIERA Link to the TV's HDMI terminal via an HDMI cable.
- Use the optical digital audio cable for audio output from the TV.



1 HDMI terminal

2 HDMI cable

3 HD Video Camera / LUMIX Camera with VIERA Link function

4 HDMI terminal / DIGITAL AUDIO OUT

5 HDMI cable (Optical digital audio cable *)

6 Player theatre / Blu-ray Disc theatre with VIERA Link function

7 Speaker system

8 Amplifier with VIERA Link function

9 DIGA Recorder with VIERA Link function

*: If the connected equipment has "HDAVI Control 5" function, you do not have to use this audio cable (Optical digital audio cable). In this case, connect the equipment to the TV's HDMI2 / HDMI4 terminal via an HDMI cable and match the output setting in ARC Output in the Sound menu.

■ Available features (HDMI and Audio out connections)

Player theatre

- Easy playback*3
- Power on Link
- Power off Link
- Intelligent Auto Standby*2*4
- VIERA Link Control*1
- Speaker Selection

Blu-ray Disc theatre

- Easy playback*3
- Power on Link
- Power off Link
- Standby Power Save*2
- Intelligent Auto Standby*2*4
- VIERA Link Control*1
- Speaker Selection

Amplifier

- Power off Link
- Intelligent Auto Standby*2
- Speaker Selection

*1 : For equipment which has “HDAVI Control 2 or later” function.

*2 : For equipment which has “HDAVI Control 4 or later” function.

*3 : While playing a disc

*4 : Except for watching a disc

■ VIERA Link Control of compatible equipment

The following is the maximum number of compatible equipment that can be controlled by VIERA Link Control. This includes connections to equipment already connected to the TV.

For example, DIGA Recorder connected to Amplifier which is connected to the TV via an HDMI cable.

→ Functions > VIERA Link “HDAVI Control™” > VIERA Link Control

- Recorder:

  Maximum 3 (DIGA Recorder, etc.)

- Player:

  Maximum 3 (DVD Player, Blu-ray Disc Player, HD Video Camera, LUMIX Camera, Digital Camera, Player theatre, Blu-ray Disc theatre, etc.)

- Audio system:

  Maximum 1 (Player theatre, Blu-ray Disc theatre, Amplifier, etc.)

- Tuner:

  Maximum 4 (Set top box, etc.)

Preparations

- Connect the equipment supporting VIERA Link.
- For VIERA Link connections

→ Functions > VIERA Link “HDAVI Control™” > Summary of VIERA Link

- Use a fully wired HDMI compliant cable.
- Set up the connected equipment. Read the manual of the equipment.
- Set VIERA Link to On in the Setup Menu.
- Set up the TV. After connection, turn the equipment on and then switch the TV on. Select the HDMI input from Input Selection with AV and make sure that an image is displayed correctly. (This setup should be done each time the following conditions occur.)
  - First time operation
  - Adding or reconnecting equipment
  - Changing setup

Easy playback

Automatic input switching - When the connected equipment is operating, the input mode is switched automatically.

Power on Link

Set Power on Link to On in VIERA Link Settings to use this function.

When the connected equipment starts playback or direct navigator / function menu for the equipment is activated, the TV is automatically turned on. (Only when the TV is in Standby mode.)

Power off Link

Set Power off Link to On in VIERA Link Settings to use this function.

When the TV is set to Standby mode, the connected equipment is also automatically set to Standby.

- This function will work even if the TV enters Standby mode automatically by auto power standby function.

Standby Power Save

Set Standby Power Save to On in VIERA Link Settings to use this function.

The power consumption of the connected equipment in Standby mode is controlled higher or lower in synchronisation with the TV on / off state to reduce the consumption.

When the TV is set to Standby mode, the connected equipment is automatically set to Standby and the power consumption of the connected equipment is automatically minimised.

When the TV is turned on, the connected equipment is still in Standby mode, but the power consumption is increased to start the connected equipment fast.

- This function is effective if the connected equipment can change the power consumption in Standby mode and is set to higher consumption.
- This function works when Power off Link is set to On.

Intelligent Auto Standby

Set Intelligent Auto Standby to On in VIERA Link Settings to use this function.

When the TV is on, non-used connected equipment goes into Standby mode automatically to reduce the power consumption. For example, when the input mode is switched from HDMI or when Speaker Selection is changed to TV (except for watching a disc).

- This function may not work properly depending on the connected equipment. In this case, set to Off.

VIERA Link Control

You can control some functions of the connected equipment with this TV's remote control by pointing at the TV's signal receiver.

1. Display APPS List with APPS.
2. Select VIERA Link with △ / ▽ / ◁ / ▷ and press OK to access.
3. Select VIERA Link Control with △ / ▽ and press OK to access.
4. Select one of the following items with △ / ▽ and press OK to access.

   Recorder / Player / Home Cinema / Video Camera / LUMIX / Digital Camera / Other

   (The menu of the accessed equipment will be displayed. The input mode will be changed automatically.)

   - The displayed item may vary depending on the connected equipment.
   - Home Cinema means Player theatre, Blu-ray Disc theatre or Recorder theatre.
   - Other means Tuner set top box.
5. Follow the on-screen instructions to operate the menu of the equipment.
   - Confirm the remote control code is "73".

     → Watching > External equipment > Operating with TV's remote control
   - To display the operation guide

     OPTION

     (If other manufacturers' product is accessed, Setup / Contents Selection menu may be displayed.)
   - Available TV's remote control buttons depend on the connected equipment.

■ If multiple recorders or players are connected

Each recorder / player is numbered. The number is given from the TV's lower number of HDMI terminal connected to the same type of equipment. For example, when two recorders are connected to HDMI2 and HDMI3, the recorder connected to HDMI2 is displayed as Recorder1, and the recorder connected to HDMI3 is displayed as Recorder2.

■ If you access non-VIERA Link equipment

The type of the connected equipment is displayed. Although you can access the connected equipment, you cannot operate it. Use the remote control of the connected equipment.

= Note =

- If you cannot operate the equipment, check the settings and the equipment.

  Functions > VIERA Link “HDAVI Control™” > Summary of VIERA Link

- Some operations may not be available depending on the equipment. In this case, use the remote control of the connected equipment.
- For details of the operations for the connected equipment, read the manual of the equipment.

Speaker Selection

You can control the theatre speaker with this TV’s remote control by pointing at the TV’s signal receiver.

1. Display APPS List with APPS.
2. Select VIERA Link with △ / ▽ / ◁ / ▷ and press OK to access.
3. Select Speaker Selection with △ / ▽ and press OK to access.
4. Select Home Cinema / TV with △ / ▽ and press OK to set.

   Home Cinema:

   The sound is delivered from theatre speakers. Player theatre, Blu-ray Disc theatre or Amplifier will be automatically turned on if it is in Standby mode.

   - The sound of TV speakers is mute. When the equipment is turned off, TV speakers will be activated.
   - You can use Volume Up / Down and MUTE.

   TV:

   TV speakers are active.

■ Multi-channel sound

If you want to enjoy the multi-channel sound (e.g. Dolby Digital 5.1ch) via an Amplifier, connect it with an HDMI cable and Optical digital audio cable, and then select Home Cinema. If your Amplifier has the “HDAVI Control 5” function, you only need to connect it with an HDMI cable to the TV’s HDMI2 / HDMI4 terminal and match the output setting in ARC Output in the Sound menu.

To enjoy multi-channel sound from DIGA Recorder, connect an HDMI cable from the DIGA Recorder to the Amplifier.

= Note =

- If you cannot operate the equipment, check the settings and the equipment.

  → Functions > VIERA Link “HDAVI Control™” > Summary of VIERA Link

Note

- These functions may not work properly depending on the connected equipment.
- Image or sound may not be delivered for the first few seconds when the input mode is switched.
- “HDAVI Control 5” is the newest standard for HDAVI Control compatible equipment. This standard is compatible with conventional HDAVI equipment.
- To confirm the HDAVI Control version of this TV

  → Support > Information > Using Help menu

Child Lock

Using Child Lock

You can lock specific channels / AV input terminals to restrict access to them. When the locked channel / input is selected, a message appears. Enter the PIN number to watch.

1. Display the menu with MENU.
2. Select Setup > Child Lock with △ / ▽ and press OK to access.
3. Enter the PIN number (4 digits) with Numeric buttons.

   - Enter the PIN number twice at first setting.
   - Make a note of the PIN number in case you forget it.
4. Select Child Lock List with △ / ▽ and press OK to access.
5. Select the channel / input with △ / ▽ and press OK to lock.
   - 🔒 appears when the channel / input is locked.
   - To cancel

     1) Select the locked channel / input with △ / ▽.

     2) Press OK.
   - To lock all

     (green)
   - To cancel all locks

     (yellow)
   - To jump to the head of the next channel / input group

     (blue)

PIN number

You can change the PIN number.

1. Select Change PIN with △ / ▽ and press OK to access.
2. Enter a new PIN number twice with Numeric buttons.

= Note =

- Setting Shipping Condition erases the PIN number and all settings.

Shipping Condition

Shipping Condition

Resets the TV to its original condition (i.e. no channels tuned in).

All settings other than USB Device Setup are reset (channels, picture, sound settings, etc.).

1. Display the menu with MENU.
2. Select Setup > System Menu > Shipping Condition with △ / ▽ and press OK to access.
3. When the confirmation screen is displayed, select Yes with ◁ / ▷ and press OK to set.
4. Follow the on-screen instructions.
   - Auto Tuning will automatically start.

= Note =

- To retune TV channels only (e.g. after moving house), set Auto Tuning.

  Watching > Tuning and editing channels > Auto Tuning

Updating the TV Software

Information

A new version of software may be released for download to enhance the performance or operations of the TV.

If there is an update available and the channel has the update information, a notification message is displayed.

- To download

  OK

  – Press EXIT when not downloading.

Auto update

You can update new software automatically.

1. Display the menu with MENU.
2. Select Setup > System Menu > System Update > Auto Update Search in Standby with △ / ▽ and press OK to access.
3. Select Immediately / 1 hour after / Off with △ / ▽ and press OK to set.

- If System Update is performed, the software will be updated (TV functions may be changed). If you do not want to do so, set Auto Update Search in Standby to Off.
- Every time you set, the TV automatically performs search in Standby and downloads an update if any software updates are available.
- The automatic updating cannot be performed under the following conditions:
  – TV turned off with Mains Power On / Off switch
  – Recording is in progress.

= Note =

- Download may take a few hours.
- During software download and update, DO NOT switch off the TV.
- A notification message may be a reminder. In this case, schedule information (the date when the new version can be used) will appear. You can set the reservation for update. The update will not start when the TV is off.

Manual update

You can update new software manually.

1. Display the menu with MENU.
2. Select Setup > System Menu > System Update > System Update Search Now with △ / ▽ and press OK to access.
3. Searches for an update (for several minutes) and displays a corresponding message if any.
4. Download with OK.

= Note =

- Download may take a few hours.
- During software download and update, DO NOT switch off the TV.
- To update via the internet

  → Network > Network settings > Software Update

Setting characters

Using Numeric buttons

You can enter characters for free input items using Numeric buttons.

Press Numeric buttons repeatedly until you reach the desired character.

1 : . @ / 1 ! : # + - * _ ( ) “ ‘ % & ? , ; = $ [ ] ~ < > { } | ` ^ \

2 : a b c 2 A B C

3 : d e f 3 D E F

4 : g h i 4 G H I

5 : j k l 5 J K L

6 : m n o 6 M N O

7 : p q r s 7 P Q R S

8 : t u v 8 T U V

9 : w x y z 9 W X Y Z

0 : Space 0

- The character is set automatically if you leave for 1 second.
- You can also set the character pressing OK or other Numeric buttons less than 1 second.
- The characters may vary depending on the input items.

Bluetooth devices

Bluetooth Setup

You can use Bluetooth keyboards* / mouse* with this TV by setting Bluetooth Setup in the Setup Menu.

*: HID (Human Interface Device Profile) compliant keyboards / mouse can be used.

- Additional information for the devices may be found on the following website.

  http://panasonic.net/viera/support (English only)

1. Display the menu with MENU.
2. Select Setup > Bluetooth Setup > Devices with △ / ▽ and press OK to access.

Devices

Searches the available device and displays the status.

Not paired:

The device is not registered. Register the device by following the on-screen instructions to use with this TV.

Connected:

The device is registered and you can use with this TV.

Not connected:

The device is already registered, but not connected to this TV. Check the device is turned on and set within the available range.

- This setup has not been designed for the 3D Eyewear and Touch Pad Controller supporting Bluetooth wireless technology.

Keyboard

Keyboard

- Keyboards requiring the drivers are not supported.
- Characters may not be displayed correctly on the TV screen depending on the connected keyboard.
- Some of the keys of keyboards may correspond to the operation of the remote control.

Keyboard	Remote Control
↑ / ↓ / ← / →	△ / ▽ / ◁ / ▷
Enter	OK
Backspace	RETURN
Esc	EXIT
0 - 9 / Character	Numeric buttons
F1	HOME
F2	APPS
F3	MENU
F4	AV
F5 / F6	Channel Down / Up
F7 / F8	Volume Down / Up
F9 / F10 / F11 / F12	Coloured buttons

Settings

Setting menu

How to use

Various menus allow you to make settings for the picture, sound, and other functions.

1. Display the menu with MENU.
   - Displayed items vary depending on the input signal.
2. Select the menu with △ / ▽ and press OK to access.
3. Select the items with △ / ▽ and press OK to access.
   - Only available items can be selected.
   - You can also access from eHELP pressing (red) at each item (if available).

- You can select from among alternatives with △ / ▽ and press OK to set.
- You can adjust using the slide bar with ◁ / ▷ and press OK to set.
- You can go to the next screen with OK.
- You can enter names or numbers freely for some items.
  1) Enter characters one by one with △ / ▽ / ◁ / ▷ and press OK to set.
     – You can set characters using Numeric buttons.

       Functions > Setting characters > Using Numeric buttons
  2) Press RETURN to store.
- To reset the settings
  – To initialise picture or sound settings only, select Reset to Defaults in the Picture Menu or Sound Menu.
  – To initialise all settings, select Shipping Condition.

    Functions > Shipping Condition
- To exit the menu screen

  EXIT
- To return to the previous screen

  RETURN

- To change menu pages

- To change the colour type of on-screen displays, set OSD Colour.

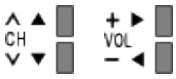
  my Home Screen > my Home Screen > OSD Colour

= Note =

- Menu items and selectable options vary depending on the mode (TV mode, Media Player, Network services, etc.).
- Some settings in Picture menu may also affect the menu screen when watching the content of 4K format.

■ Using control panel buttons

1. Press and hold INPUT/OK/HOLD for MENU button for 3 seconds to display the menu.
2. Select and set with following control panel buttons.
   - Move the cursor / select from a range of options / select the menu item (up and down only) / adjust levels (left and right only)

   - Access the menu / store settings after adjustments have been made or options have been set with INPUT/OK/HOLD for MENU button.

Picture

Viewing Mode

Selects your favourite picture mode for each input.

(Dynamic / Normal / Cinema / THX Cinema / THX Bright Room / True Cinema / Monitor / Custom / Professional1 / Professional2)

Watching > For best picture > Viewing Mode

Basic settings

Backlight, Contrast, Brightness, Colour, Tint, Sharpness

Adjusts the levels of these options according to your personal preference.

Watching > For best picture > Basic settings

- Sharpness is not available when 1080p Pixel by 4pixels is set to On.

Colour Temperature

Sets the overall colour tone of the picture (bluer - redder).

Watching > For best picture > Basic settings

Vivid Colour

(On / Off)

Automatically adjusts colours to vivid ones.

Watching > For best picture > Basic settings

Colour Remaster

(Max / Min / Off)

Displays the vivid images with the expanded colour gamut.

Watching > For best picture > Basic settings

- For HDMI input or video contents of Media Player
- Not valid when Viewing Mode is THX modes

Reversal Film Effect

(Max / Min / Off)

Provides the picture effect such as the reversal film for photo contents.

Watching > For best picture > Basic settings

- For HDMI input or photo contents of Media Player
- Not valid when Viewing Mode is THX modes

Adaptive Backlight Control

Automatically controls the level of backlight according to the images.

Watching > For best picture > Basic settings

Letterbox

(Dimmer / Normal)

Adjusts the black level of the letterbox (anamorphic) area for watching movies, etc.

Watching > For best picture > Basic settings

Resolution Remaster

(Auto / Max / Mid / Min / Off)

Enhances picture resolution to make the image sharper.

Watching > For best picture > Basic settings

- Not valid when 1080p Pixel by 4pixels is set to On

Caption Smoother

(Auto / Max / Mid / Min / Off)

Makes caption contours smooth. Specially effective for low resolution contents.

Watching > For best picture > Basic settings

- Not valid in 3D mode or when 1080p Pixel by 4pixels is set to On

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Brilliance Enhancer

(Max / Mid / Min / Off)

Enhances picture contrast locally to increase picture brilliance.

Watching > For best picture > Basic settings

- Not valid in 3D mode or when 1080p Pixel by 4pixels is set to On

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Intelligent Frame Creation

(Max / Mid / Min / Off)

Automatically compensates the picture frame rate and removes juddering movements to make the images smooth.

Watching > For best picture > Basic settings

- Depending on the contents, images may be noisy. To prevent the noise, change the setting.
- Not valid for photo contents of Media Player / Network services or when Game Mode is set to On or when aspect is set to H Full

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24p Smooth Film

(Max / Mid / Min / Off)

Automatically compensates the picture frame rate to make the 24p source movie images smooth.

Watching > For best picture > Basic settings

- This function is available only for 24p signal input and displayed instead of Intelligent Frame Creation.
- Not valid for photo contents of Media Player / Network services or when Game Mode is set to On or when aspect is set to H Full

Ambient Sensor

Automatic Brightness Control function

Adjusts picture settings automatically depending on ambient lighting conditions.

(On / Off)

Watching > For best picture > Ambient Sensor

Noise reduction settings

Noise Reduction

(Auto / Max / Mid / Min / Off)

Reduces unwanted picture noise.

Watching > For best picture > Noise reduction settings

MPEG Remaster

(Auto / Max / Mid / Min / Off)

Reduces flicker noise in contoured parts of a picture and block noise.

Watching > For best picture > Noise reduction settings

Advanced Settings

You can adjust and set up the detailed picture settings.

Watching > For best picture > Advanced Settings

This function is available when Viewing Mode is set to Cinema, True Cinema, Monitor, Custom or Professional1 / 2.

Option Settings

Game Mode

(On / Off)

Provides suitable images for fast response signals when playing games.

Watching > For best picture > Option Settings

- Not valid in TV mode

Film Cadence Mode

(On / Off)

Improves vertical resolution for movie images.

Watching > For best picture > Option Settings

- This function is available for interlaced signals (except in Network services or when Game Mode is set to On).

1080p Pure Direct

(On / Off)

Reproduces the original image quality in detail for 1080p (HDMI / DisplayPort) input signal.

Watching > For best picture > Option Settings

- Not valid in 3D mode or when 1080p Pixel by 4pixels is set to On

---

4K Pure Direct

(On / Off)

Reproduces the original image quality in detail for 4K (HDMI / DisplayPort) input signal.

Watching > For best picture > Option Settings

- Not valid in 3D mode

1080p Pixel by 4pixels

(On / Off)

Displays like pixel by pixel to make the image sharper for 1080p signal.

Watching > For best picture > Option Settings

- For HDMI and DisplayPort input
- Not all image may be displayed as pixel by pixel precisely.
- Not valid in 3D mode

HDMI Content Type

(Graphics / Photos / Auto / Off)

Adjusts the picture settings of each HDMI input according to the selected content type.

Watching > For best picture > Option Settings

- For HDMI input

DisplayPort Content Type

(Graphics / Photos / Off)

Adjusts the picture settings of DisplayPort input according to the selected content type.

Watching > For best picture > Option Settings

- For DisplayPort input

HDMI RGB Range

(Auto / Full / Normal)

Adjusts the black level of the image for each HDMI input.

Watching > For best picture > Option Settings

- For HDMI input

DisplayPort RGB Range

(Auto / Full / Normal)

Adjusts the black level of the image for DisplayPort input.

Watching > For best picture > Option Settings

- For DisplayPort input

AV Colour System

(Auto / PAL / SECAM / M.NTSC / NTSC)

Selects optional colour system based on video signals.

Watching > For best picture > Option Settings

- For AV input

3D-COMB

(On / Off)

Makes still or slow moving pictures more vivid.

Watching > For best picture > Option Settings

- For PAL / NTSC signal reception in TV mode or from composite connection

Screen Settings

16:9 Overscan

(On / Off)

Selects the screen area displaying the image for 16:9 aspect.

Watching > For best picture > Screen Settings

- Not valid for 4K contents, Network services or when 1080p Pixel by 4pixels is set to On

---

H-Size

(H-Size1 / H-Size2)

Switches the horizontal display range to reduce noise on the side edge of the image.

Watching > For best picture > Screen Settings

- For TV mode, AV, HDMI, DisplayPort input
- Not valid for 4K contents, 3D mode or when 1080p Pixel by 4pixels is set to On

---

Zoom Adjustments

Adjusts the vertical position and size when aspect is set to Just, Sidecut Just, Zoom or Sidecut Zoom.

Watching > For best picture > Screen Settings

- Not valid for 4K contents

Screen Display

(On / Off)

Turns the screen off when you select Off.

Watching > For best picture > Screen Settings

3D Settings

3D Detection

(On (Advance) / On / Off)

Selects whether to switch to the 3D mode automatically or not.

Watching > 3D > 3D Settings

3D Signal Message

(On / Off)

Selects whether to give a notification message when a signal of 3D format is found or not.

Watching > 3D > 3D Settings

- Not valid when 3D Detection is set to On (Advance).
- For Digital TV, Component, HDMI and DisplayPort input

3D Refresh Rate

(Auto / 100Hz / 120Hz)

Reduces juddering and flicker noises of the 3D images when using the 3D Eyewear.

Watching > 3D > 3D Settings

2D→3D Depth

(Max / Mid / Min)

Selects a level of 3D-image depth for viewing converted 2D images.

Watching > 3D > 3D Settings

3D Adjustment

(On / Off)

Adjustment of the 3D effect (except in 2D→3D mode)

Watching > 3D > 3D Settings

L/R Picture Swap

(L/R (Normal) / R/L (Reversed))

Swaps pictures for left eye and right eye (except in 2D→3D mode).

Watching > 3D > 3D Settings

Edge Smoother

(On / Off)

Set to On if you feel the contoured parts of an image are not smooth enough (except in 2D→3D mode).

Watching > 3D > 3D Settings

Safety Precautions

Displays the precautions for viewing 3D images.

Watching > 3D > 3D Settings

Lock Settings

Locks the settings of Professional1 / 2 for each input.

Watching > For best picture > Lock Settings

Copy Adjustment

Copies the selected True Cinema, Monitor, Custom, Professional1 or Professional2 settings to those of the other input.

Watching > For best picture > Copy Adjustment

Reset to Defaults

Resets the current Picture Viewing Mode to the default settings.

Sound

Mode

Selects your favourite sound mode for each input.

(Standard / Music / Ambience / User)

Watching > For best audio > Sound mode

Basic settings

Bass

Adjusts level to enhance or minimise lower, deeper sound output.

Watching > For best audio > Basic settings

Treble

Adjusts level to enhance or minimise sharper, higher sound output.

Watching > For best audio > Basic settings

Equaliser

Adjusts the frequency level to suit your favourite sound quality.

Watching > For best audio > Basic settings

Balance

Adjusts volume level of right and left speakers.

Watching > For best audio > Basic settings

Surround

(Stadium / Hall / Natural / Off)

Selects surround sound settings.

Watching > For best audio > Basic settings

Bass Boost

(On / Off)

Enhances the effect of bass sounds.

Watching > For best audio > Basic settings

Digital Remaster

(On / Off)

Compensates a compressed audio signal to reproduce the original sound quality.

Watching > For best audio > Basic settings

Volume settings

TV Speaker

(On / Off)

Set to Off when using the external speakers.

Watching > For best audio > Volume settings

Auto Gain Control

(On / Off)

Automatically regulates large sound level differences between channels and inputs.

Watching > For best audio > Volume settings

Volume Correction

Adjusts the volume of each individual channel or input mode.

Watching > For best audio > Volume settings

Speaker Distance to Wall

(Up to 30cm / Over 30cm)

Compensates for the low frequency sound due to the distance between the speakers and the wall.

Watching > For best audio > Volume settings

Voice Guidance Settings

Voice Guidance

(On / Off)

Set to On to enable voice guidance of the basic features (on-screen messages, etc.) for visually impaired users.

Watching > For best audio > Voice Guidance Settings

Speed

(Fast / Normal / Slow)

Selects the readout speed for the voice guidance.

Watching > For best audio > Voice Guidance Settings

Volume

(Max / Mid / Min)

Selects the volume for the voice guidance.

Watching > For best audio > Voice Guidance Settings

Language

Changes language for the voice guidance.

Watching > For best audio > Voice Guidance Settings

User Level

(Beginner / Expert)

Selects the level of verbosity for the voice guidance.

Watching > For best audio > Voice Guidance Settings

Web Browser

(On / Off)

Set to On to enable voice guidance of the network contents in web browser function.

Watching > For best audio > Voice Guidance Settings

Advanced settings

MPX

Selects multiplex sound mode (if available).

Watching > For best audio > Advanced settings

- For Analogue TV

Audio Preference

(Auto / MPEG)

Selects the initial setting for audio tracks.

Watching > For best audio > Advanced settings

- For Digital TV

SPDIF Selection

(Auto / PCM)

Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT and HDMI2 / HDMI4 (ARC function) terminals.

Watching > For best audio > Advanced settings

- For Digital TV or video contents of Media Player / Network services

---

HDMI Input

(Digital / Analogue)

Selects to fit the input signal.

Watching > For best audio > Advanced settings

- For HDMI input

DisplayPort Input

(Digital / Analogue)

Selects to fit the input signal.

Watching > For best audio > Advanced settings

- For DisplayPort input

ARC Output

(HDMI2 / HDMI4)

Selects ARC output terminal settings.

Watching > For best audio > Advanced settings

Reset to Defaults

Resets the current Sound Mode to the default settings.

Network

Network Connection

Sets the network setting to use this TV in your network environment.

Network > Network settings > Network Connection

Network Status

Displays and checks the network status (MAC Address, current network settings, etc.).

Network > Network settings > Network Status

my Home Cloud Settings

Notices

Displays the terms of service.

Network > Network settings > my Home Cloud Settings

VIERA Name

Sets your favourite name for this TV.

Network > Network settings > VIERA Name

TV Remote App Settings

Sets to control the TV from network equipment (smartphone, etc.).

Network > Network settings > TV Remote App Settings

Network Link Settings

Sets to control the TV with devices connected to the network.

Network > Network settings > Network Link Settings

File Sharing Settings

File Sharing Server

(On / Off)

Sets to share the files between PC and devices connected to this TV.

Media Player > Using Media Player > Sharing file

Network Device List

Lists the accessible network devices to play back the contents in Media Player.

Media Player > Using Media Player > Network device

Other settings

Software Update

Checks for available software updates from the Panasonic website.

Network > Network settings > Software Update

New Software Message

(On / Off)

Selects whether to give a notification message when new software is found via network or not.

Network > Network settings > New Software Message

Timer

Off Timer

Sets the duration of time until the TV automatically goes into Standby mode.

(90 / 75 / 60 / 45 / 30 / 15 / Off (minutes))

Watching > Basic > Off Timer

Timer Programming

Sets a timer to record or remind forthcoming programmes.

Recording > Timer Programming > Setting Timer Programming

- For Digital TV

Clock Settings

Mode

(Auto / Manual)

Selects the clock setting mode for this TV.

Watching > Basic > Adjusting time

Date

Sets the current date manually.

Watching > Basic > Adjusting time

Time

Sets the current time manually.

Watching > Basic > Adjusting time

Auto Standby

Automatically turns the TV to Standby mode for energy saving when no operation is performed for 4 hours.

(On / Off)

Watching > Basic > Energy saving functions

No signal Power off

Automatically turns the TV to Standby mode to prevent unnecessary power consumption when no signal is received and no operation is performed for 10 minutes.

(On / Off)

Watching > Basic > Energy saving functions

Setup

Eco Navigation

Automatically sets the TV to the most suitable energy-saving mode.

Watching > Basic > Energy saving functions

Voice Control Settings

Settings for Voice Control function

Functions > Voice Control > Preparations

User Settings

Settings for user profile.

Functions > User profile > Settings

Info Bar Settings

Settings for Info Bar function.

Functions > Info Bar > Settings

USB Device Setup

Formats the USB HDD or safely removes USB device.

Recording > USB HDD setup > Setting for USB HDD

Recording Setup

Settings for the recording feature of the USB HDD

Recording > USB HDD setup > Setting for USB HDD

VIERA Touch Pad Controller

Pairing

Registers Touch Pad Controller (supplied) to this TV.

Functions > Touch Pad Controller > Settings

Cursor Settings

Sets for the cursor of Touch Pad Controller.

Functions > Touch Pad Controller > Settings

Operation Guide

Displays the operation guide of Touch Pad Controller.

Functions > Touch Pad Controller > Settings

Bluetooth Setup

Settings for the specific devices supporting Bluetooth wireless technology

Functions > Bluetooth devices > Bluetooth Setup

Child Lock

Applies access control for channels or inputs to prevent unwanted access.

Functions > Child Lock > Using Child Lock

Tuning Menu

Favourites Edit

Creates a list of favourite channels.

Watching > Tuning and editing channels > Favourites Edit

- For Digital TV

Channel List

Skips unwanted channels or edits channels.

Watching > Tuning and editing channels > Channel List

Auto Tuning

Automatically searches for receivable channels.

Watching > Tuning and editing channels > Auto Tuning

Manual Tuning

Searches for channels manually.

Watching > Tuning and editing channels > Manual Tuning

Update Channel List

Updates the channel list while keeping your settings.

Watching > Tuning and editing channels > Update Channel List

- For Digital TV

New Channel Message

(On / Off)

Selects whether to give a notification message when a new channel is found or not.

Watching > Tuning and editing channels > New Channel Message

- For Digital TV

Signal Condition

Checks the signal condition.

Watching > Tuning and editing channels > Signal Condition

- For Digital TV

Add TV Signal

Adds the TV mode.

Watching > Tuning and editing channels > Add TV Signal

= Note =

The settings in Tuning Menu are applicable only for the selected TV mode. The menu name varies depending on the TV mode. (Digital TV Tuning Menu / Analogue TV Tuning Menu)

Language

OSD Language

Changes language for on-screen displays.

Watching > Basic > Language

Preferred Audio

Selects the default language for Digital TV multi audio (depending on the broadcaster).

Watching > Basic > Language

Preferred Subtitles

Selects the default language for Digital TV subtitles (depending on the broadcaster).

Watching > Basic > Language

Display Settings

OSD Colour

(Jet black / Pale grey / Organic brown / Sand beige)

Selects the preferred colour type of on-screen displays.

my Home Screen > my Home Screen > OSD Colour

Teletext

This item is not used for this model.

Teletext Character Set

This item is not used for this model.

Input Labels

Accesses the input labels list to select the label of each input mode or set to skip unconnected one for easier identification and selection in Input Selection or banner.

Watching > External equipment > Watching external input

Banner Display Timeout

(10 / 9 / 8 / 7 / 6 / 5 / 4 / 3 / 2 / 1 / 0 (No display) (seconds))

Sets how long the information banner stays on screen.

Watching > Basic > Information banner

Smart Banner

(On / Off)

Displays the introduction banner for the internet service.

Watching > Basic > Information banner

Playing Time Display

(On / Off)

Set to On to display a time period of continuous use in Game mode on the top right of the screen every 30 minutes.

Watching > External equipment > Watching external input

- This function is available when Game Mode is set to On.

HDMI4 HDCP Setting

Select a version of HDCP according to the content you watch.

(2.2 / 1.4)

Watching > 4K resolution > HDMI4 HDCP Setting

- For HDMI4 terminal

DisplayPort Settings

Stream Setting

(Auto / Single Stream)

Selects DisplayPort signal stream.

Watching > 4K resolution > DisplayPort Settings

- For DisplayPort input

VIERA Link Settings

VIERA Link

(On / Off)

Sets to use VIERA Link functions.

Functions > VIERA Link “HDAVI Control™” > Preparations

Power on Link

(On / Off)

Sets to use Power on Link functions.

Functions > VIERA Link “HDAVI Control™” > Power on Link

Power off Link

(On / Off)

Sets to use Power off Link functions.

Functions > VIERA Link “HDAVI Control™” > Power off Link

Standby Power Save

(On / Off)

Controls the connected equipment to reduce power consumption in Standby.

Functions > VIERA Link “HDAVI Control™” > Standby Power Save

- This function is available when VIERA Link is set to On and Power off Link is set to On.

Intelligent Auto Standby

(On / Off)

Makes non-watched or non-used connected equipment go into Standby mode to reduce the power consumption.

Functions > VIERA Link “HDAVI Control™” > Intelligent Auto Standby

- This function is available when VIERA Link is set to On.

System Menu

Shipping Condition

Resets all settings to the original condition.

Functions > Shipping Condition > Shipping Condition

System Update

Downloads new software to this TV.

Functions > Updating the TV Software > Auto update

Licence Menu

Displays the software licence information.

Other Settings

USB Charge in Standby

(On / Off)

Enables charging from the USB port in Standby mode.

Watching > 3D > Viewing 3D

- Available for charging the rechargeable 3D Eyewear (optional accessory)
- This function is available when in Standby mode.

Power Save

(On / Off)

Reduces brightness of the picture to economise on power consumption.

Support

FAQs

Picture

Before requesting service or assistance, please follow these simple guides to solve the problem.

If the problem still persists, please contact your local Panasonic dealer for assistance.

Black and white picture

- Check that the output of the external equipment matches the input of the TV.

Chaotic image, noisy

- Set Noise Reduction and MPEG Remaster in the Picture Menu to remove noise.

  Watching > For best picture > Noise reduction settings
- Check nearby electrical equipment (car, motorcycle, fluorescent lamp).
- Check the correct input mode is selected.
- Check the setting of AV (COMPONENT / VIDEO) in Input Selection to match the output of the external equipment.

  Watching > External equipment
- Is Contrast, Brightness or Colour in the Picture Menu set to the minimum?

  Watching > For best picture > Basic settings
- Check all required cables and connections are firmly in place.

Blurry or distorted image (no sound or low volume)

- Reset channels.

  Watching > Tuning and editing channels > Auto Tuning

White spots or shadow images (noise)

- Check the position, direction, and connection of the aerial.

There may be red, blue, green and black spots on the screen

- This is a characteristic of liquid crystal panels and is not a problem. The liquid crystal panel is built with very high precision technology giving you fine picture details. Occasionally, a few non-active pixels may appear on the screen as a fixed point of red, green, blue or black. Please note this does not affect the performance of the panel.

Shop appears on screen at switch on

- Shop was selected in first time Auto Tuning when the TV is turned on for the first time. Reset settings in Shipping Condition, then select Home in first time Auto Tuning.

Functions > Shipping Condition > Shipping Condition

Digital TV

Before requesting service or assistance, please follow these simple guides to solve the problem.

If the problem still persists, please contact your local Panasonic dealer for assistance.

- Due to the digital reception technologies involved, quality of the Digital TV signals may be relatively low in some cases, despite good reception of Analogue TV channels.

Unable to receive signals with a high-performance aerial

- Install an aerial individually for the TV and VCR (or use a splitter).

Interference or frozen / disappearing image in Digital TV

- Check Signal Condition. If the level of Signal Quality is low, check aerial.

Watching > Tuning and editing channels > Signal Condition

- Turn the TV off with Mains Power On / Off switch, then turn it on again.

Sound

Before requesting service or assistance, please follow these simple guides to solve the problem.

If the problem still persists, please contact your local Panasonic dealer for assistance.

No sound is produced

- Is “Sound mute” active? Press MUTE to switch sound mute on or off.
- Is the volume set to the minimum?
- Check connections and setting of external equipment.

  → Watching > External equipment
- Ensure that Speaker Selection is set to TV.

  → Functions > VIERA Link “HDAVI Control™” > Speaker Selection
- Ensure that TV Speaker is set to On.

  → Watching > For best audio > Volume settings

Sound level is low or sound is distorted

- Sound signal reception may be poor.
- Set MPX in the Sound Menu to Mono. (Analogue TV)

  → Watching > For best audio > Advanced settings

3D

Before requesting service or assistance, please follow these simple guides to solve the problem.

If the problem still persists, please contact your local Panasonic dealer for assistance.

Cannot view 3D images

Cannot register a 3D Eyewear to the TV

- Has the 3D Eyewear been switched on and set to 3D mode?
- Is the battery installed correctly?

  Watching > 3D > 3D Eyewear - Replacing battery
- Check the remaining battery level of the 3D Eyewear. (Battery status is displayed on the screen when the 3D Eyewear is turned on.) When the battery is running low, replace it with a new one.
- Use the 3D Eyewear within approx. 3.2 m from the TV. (The range may be shortened depending on the obstacles between the TV and the eyewear, or the surrounding environment.)
- Register again.

  Watching > 3D > 3D Eyewear - Registration
- Does the 3D Eyewear support Bluetooth wireless technology?
- Ensure that 3D Mode Selection is set to 3D.

  Watching > 3D > 3D Mode Selection
- Some 3D image signals may not be automatically recognised as 3D images. Set 3D Mode Selection (Manual) to match the picture format.

  Watching > 3D > Viewing 3D
- For some people, the 3D images may be difficult to see, or cannot be seen, especially among users who have a different level of eyesight between the left and right eyes. Take necessary measures (wearing glasses, etc.) to correct your eyesight before use.

3D Eyewear is turned off automatically

- Check that there are no obstacles between the TV and the 3D Eyewear.

There is something wrong with the 3D images

- Check the setting of L/R Picture Swap or Edge Smoother.

  Watching > 3D > 3D Settings

The indicator lamp does not light up when pressing Power button on the 3D Eyewear

- The battery may be running low or flat. Replace it with a new one.

  Watching > 3D > 3D Eyewear - Replacing battery

HDMI

Before requesting service or assistance, please follow these simple guides to solve the problem.

If the problem still persists, please contact your local Panasonic dealer for assistance.

Sound is unusual

- Set the sound setting of the connected equipment to “2ch L.PCM”.
- Check the HDMI Input setting in the Sound Menu.

  Watching > For best audio > Advanced settings
- If digital sound connection has a problem, select analogue sound connection.

  Watching > External equipment > HDMI features

Pictures from external equipment are unusual when the equipment is connected via HDMI

- Check the HDMI cable is connected properly.

  Watching > External equipment > External connection
- Turn the TV and equipment off, then turn them on again.
- Check an input signal from the equipment.

  Watching > External equipment > Valid input signals
- Use equipment compliant with EIA/CEA-861/861D.

Network

Before requesting service or assistance, please follow these simple guides to solve the problem.

If the problem still persists, please contact your local Panasonic dealer for assistance.

Cannot connect to the network

- Check the LAN cable or wireless LAN is connected properly.

  Network > Network connections

- Check the connections and settings.

  Network> Network connections

  Network > Network settings

- Check the network equipment and network environment.
- The router may not be set to issue IP address automatically. If the network administrator prefers to allocate an IP address, set an IP address manually.

  Network > Network settings

- The router may be using MAC address filtering (security setting). Confirm the MAC Address of this TV and set the router to use it.

  Network > Network settings > Network Status

- If the problem persists, consult your Internet Service Provider or telecommunications company.

Cannot select the file during DLNA operations

- Is media server of the connected equipment prepared?

  Network > DLNA > Information

- Check applicable data format.

  Network > Technical information

- Check the settings of Network Link Settings.

  Network > Network settings > Network Link Settings

Cannot operate internet content

- Check the connections and settings.

  Network > Network connections > Internet connection

  Network > Network settings

- The server or connected line may be busy now.

Other

Before requesting service or assistance, please follow these simple guides to solve the problem.

If the problem still persists, please contact your local Panasonic dealer for assistance.

VIERA Link function does not work and an error message appears

- Check the connections.

  Functions > VIERA Link “HDAVI Control™” > Summary of VIERA Link

- Turn the connected equipment on and then switch the TV on.

  Functions > VIERA Link “HDAVI Control™”

Parts of the TV become hot

- Even if the temperature of parts of the front, top and rear panels has risen, these temperature rises do not cause any problems in terms of performance or quality.

Overcurrent error message appears

- The connected USB device may cause this error. Remove the device and turn the TV off with Mains Power On / Off switch, then turn it on again.
- Check foreign objects are not inside the USB port.

An error message appears

- Follow the message’s instructions.
- If the problem persists, contact your local Panasonic dealer or the authorised service centre.

Built-in Camera does not work

- Ensure the built-in Camera is held up. When the application for camera operation is activated, the built-in Camera automatically pops up.
- Face recognition may not work properly depending on surrounding environment or condition (for example, darkened room, etc.).

Touch Pad Controller does not work or cannot be registered

- Are the batteries installed correctly?
- The batteries may be running low. Replace them with new ones.
- Register again.

  Functions > Touch Pad Controller > Settings
- Use Touch Pad Controller within approx. 3.2 m from the TV. (The range may be shortened depending on the obstacles between the TV and the controller, or the surrounding environment.)

Voice Control function does not work

- Voice Control function may not work properly depending on the pronunciation, noise and network environment.
- For details

  Functions > Voice Control

The display panel moves slightly and clattered sound is heard when it is pushed with a finger

- There is a little gap around the panel to prevent damage to the panel. This is not a malfunction.

Maintenance

Care and Cleaning

First, remove the mains plug from the socket outlet.

■ Display panel, Cabinet, Pedestal

Regular care:

Gently wipe the surfaces of the display panel, cabinet, or pedestal using a soft cloth to clean the dirt or fingerprints.

For stubborn dirt:

(1) First clean the dust on the surface.

(2) Dampen a soft cloth with clean water or diluted neutral detergent (1 part detergent to 100 parts water).

(3) Wring the cloth firmly. (Please note liquids do not enter the TV inside. May lead to product failure.)

(4) Finally, wipe away all the moisture.

= Caution =

- Do not use a hard cloth or rub the surface too hard, otherwise this may cause scratches on the surface.
- Take care not to subject the surfaces to insect repellent, solvent, thinner or other volatile substances. This may degrade surface quality or cause peeling of the paint.
- The surface of the display panel is specially treated and may be easily damaged. Take care not to tap or scratch the surface with your fingernail or other hard objects.
- Do not allow the cabinet and pedestal to make contact with a rubber or PVC substance for a long time. This may degrade surface quality.

■ Mains plug

- Wipe the mains plug with a dry cloth at regular intervals. Moisture and dust may lead to fire or electrical shock.

Information

Using Help menu

1. Display the menu with MENU.
2. Select Help with △ / ▽ and press OK to access.
3. Select TV Self Test / System Information with △ / ▽ and press OK to access.

TV Self Test

Makes a diagnosis of picture or sound problems.

Follow the on-screen instructions.

System Information

Displays the system information of this TV.

Optional accessories

3D Eyewear

■ 3D Eyewear

- If you need 3D Eyewear additionally, please purchase Panasonic optional accessory.
- Use Panasonic 3D Eyewear supporting Bluetooth wireless technology.
- For more information:

  http://panasonic.net/viera/support (English only)

Wall-hanging bracket

■ Wall-hanging bracket

- Please contact your local Panasonic dealer to purchase the recommended wall-hanging bracket.

= Warning =

- Using other wall-hanging brackets, or installing a wall-hanging bracket by yourself have the risk of personal injury and product damage. In order to maintain the unit's performance and safety, be absolutely sure to ask your dealer or a licensed contractor to secure the wall-hanging brackets. Any damage caused by installing without a qualified installer will void your warranty.
- Carefully read the instructions accompanying optional accessories, and be absolutely sure to take steps to prevent the TV from falling off.
- Handle the TV carefully during installation since subjecting it to impact or other forces may cause product damage.
- Take care when fixing wall brackets to the wall. Always ensure that there are no electrical cables or pipes in the wall before hanging bracket.
- To prevent fall and injury, remove the TV from its fixed wall position when it is no longer in use.

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